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# DPW Training Workshop/ ENFORCE 2000



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#### LETTER FROM THE EDITOR



The July/August 2000 issue of the *Public Works Digest* features some of the highlights of the DPW Training Workshop, which, for the second year in a row, was held at Fort Leonard Wood in Missouri from 3-5 May 2000.

Over the last couple of years, Fort Leonard Wood has seen many changes and improvements. The Engineer School, Chemical School and Military Police School have been combined into the Maneuver Support Center (MANSCEN), which opened 1 October 1999. These schools are now co-located at Fort Leonard Wood, along with some new missions— Home Land Security Defense, ITRO (Interservice Training Organization) and GIT training. Fort Leonard Wood also boasts the largest NCO Academy in the Army, the largest Drill Sergeant School and the largest Marine detachment not on a Marine Corps Base.

MG Robert B. Flowers, the current Commanding General of Fort Leonard Wood, encouraged all conference attendees to make an effort to get out and see the post, especially some of the new buildings.

In this first year of the new millenium, attendees got three workshops for the price of one—the DPW Workshop, EN-FORCE 2000 and the Senior Leaders Conference—bringing together not only DPWs from Army installations and engineers from around the world but the Corps' senior executives as well. The General Sessions were held jointly for all three groups, filling the large auditorium with at times more than 2000 people! Throughout the three days of the conference, the hallways buzzed with greetings and conversation as DPWs, "green-suiters" and the cream of our leadership exchanged problems, views and ideas.

This was the last conference for LTG Joe N. Ballard as the Chief of Engineers. His outstanding presentation on the "State of the Regiment" was a mixture of praise, admonition and a sad farewell. General Eric K. Shinseki, Army Chief of Staff, gave his anxiously awaited outline of "Soldiers on Point for the Nation," presenting the new intermediate brigade. In "A Commander's Perspective on Managing Installations," MG Flowers addressed all DPWs as valued members of the Army team and encouraged them to keep their sense of humor. The Honorable Mahlon Apgar IV, Assistant Secretary of the Army (Installations & Environment), introduced his 12 Tenets to guide Army doctrine, planning, budgeting and execution; MG Jerry L. Sinn, Deputy Assistant Secretary of the Army (Budget), explained the three stages in "The Army Budget" process; and MG Robert L. Van Antwerp, Assistant Chief of Staff for Installation Management, gave an "Installation Overview."

MG Milt Hunter, Deputy Commanding General for Military Programs, opened the DPW Training Workshop by designating all the DPWs as "winners" for all that they do for the Army, while Mr. William A. Brown, Principal Assistant for Military Programs, provided another update on Career Program 18 (Engineers and Scientists). This year also marked the first time we had a tie for the DPW Executive of the Year in the Annual Awards Program. Ms. Kristine Allaman, Installation Support Division Chief, read the impressive citations as MG Hunter presented the awards to this year's 10 winners.

The DPW breakout sessions were well attended, some with standing room only, and most were offered at least twice during the conference. As always, DPWS used this opportunity to speak out and share stories about what was going on at their installations and sometimes to complain about what was not. They greedily absorbed any innovative ideas and new procedures developed by other installations and were eager to apply them at home. The issue of civilianizing the military DPW positions sparked some intense discussion. Other hot topics included planning and design charettes, sustainable development, RCI (Residential Communities Initiatives), Fort Carson privatization and the Fort Lewis Business Center.

Since it was impossible for your "one-person editorial team" to cover all the breakout sessions, we will refer you to our web site for a more comprehensive listing of the power-point slides used during the presentations (<a href="http://www.isd.belvoir.army.mil">http://www.isd.belvoir.army.mil</a>).

This issue of the *Digest* also contains a survey on the inside back page. We have not conducted one for some time, so it is very important that you fill it out carefully. We will use your responses to make any changes that you feel would improve the contents of our magazine and, at the same time, still provide the valuable information you have come to depend on to help you to manage your installations in the best way possible.

This is also the last issue of the *Digest* to be published with the Installation Support Division's home base in the Humphreys Engineer Center in Virginia. As of 7 August 2000, we will be relocated to the third floor of the GAO Building at 441 G Street in Washington, D.C., along with the entire Corps Headquarters. We will provide our readers with new phone numbers and new addresses as soon as they are available. Please bear with us as we make this historic transition.

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# DAUAUMSIUD

# 1999 DPW Annual Awards

n May 3, 2000, MG Milt Hunter, Deputy Commanding General for Military Programs, and Ms. Kristine Allaman, Chief of the Installation Support Division, presented the Annual DPW Awards for Excellence. There was a total of ten awards, eight individual and two corporate. This was the first year we had co-winners for the William C. Gribble, DPW Executive of the Year award.

Nominations for these awards originate at the Army installations and are processed through the MACOMs to the Corps of Engineers, Installation Support Division (ISD). MACOM nominations are then packaged together by the ISD and returned to the MACOMs for judging. In this rigorous, competitive process, MACOMS review and rank all nominees except their own, then return the nomination packages to the ISD for tabulation. The highest scoring nominee for each award is the winner.

Congratulations to all of the nominees, the award winners, the MACOMs, and the represented Army installations for their great work on the 1999 DPW Awards Program!

#### 1999 William C. Gribble, Jr., DPW Executive of the Year

**CO-WINNERS:** 

- William Sanders, 26th ASG, Heidelberg, Germany
- Robert I. Smith, Fort Jackson, SC

William Sanders has served as the Facilities Engineer/Deputy Director of Public Works, 26th Area Support Group, Heidelberg, Germany for the past 4 years. He currently manages a \$130 million budget and an RPMA workforce of 76 employees. Under his leadership, the 26th Area Support



MG Milt Hunter, Deputy Commanding General for Military Programs, is flanked by the winners of the 1999 DPW Annual Awards

Group integrated a new Base Support Battalion, and implemented key initiatives in Housing, Operations and Maintenance, and management, developing a \$50 million program for Major and Minor Military Construction. His efforts also raised the level of customer support throughout the ASG in a period of declining resources.

**Robert Smith** has served as Deputy Director of Logistics and Engineering for 7 years. He currently manages a \$35 million budget and a workforce of 457 employees. Mr. Smith's provision of outstanding facilities engineer support to the Fort Jackson training mission inspired others, raised employee morale, and greatly increased individual performance. His efforts in combining the DPW and Logistics organizations resulted in improved facilities for the new organization, achieved substantial cost savings, inspired all craft-shop employees to receive journeyman licenses and all engineers to train for Professional Engineering licenses. (Accepting for Robert Smith was LTC Edward Mazion, Deputy Director Of Engineering and Logistics, Fort Jackson, SC.)

Other Nominees: LTC Pat Findlay, 98th ASG, Wuerzburg, Germany James Corriveau, Fort Drum, NY Dan Hopkins, Fort Meade, MD

# 1999 DPW Operations & Maintenance Executive of the Year

Thomas Jennings, Fort Eustis, VA

Thomas Jennings has been Chief of the Public Works Division, Directorate of Public Works, Fort Eustis, for the past 14 years. Mr. Jennings manages a \$700,000 budget and a workforce of 89 employees. Mr. Jenning's tenacious efforts on behalf of the customers, in retrofitting the Energy Management and Control System, the natural gas conversion, and the recently completed generator plant have cut peak-period usage and greatly reduced costs.

Other Nominees:

Steve M. Raymond, 6th ASG, Stuttgart, Germany

Horst Manhart, 282nd BSB, Hohenfels, Germany

Michel Laurenceau, Fort Bragg, NC Judith M. Hudson, Fort Campbell, KY Patrick Walsh, Fort Knox, KY

# 1999 **DPW Support Executive** of the Year

Stephen McCall, Fort Eustis, VA

**Stephen A. McCall** has served as the Chief, Environmental and Natural



Resources Division, Directorate of Public Works, for 7 years, managing a workforce of 15 employees and an annual budget which exceeds \$5 million. Mr. McCall's successful integration of environmental programs with the installation mission, institution of a HAZMAT program, and extensive partnering with other installation activities, with the surrounding community, and with all levels of program regulators has been exemplary and won numerous awards.

Other Nominees: Uwe Rauch, 279th BSB, Bamberg, Germany Juergen Siegner, 415th BSB, Kaiserslautern, Germany John Boyd, Fort Riley, KS Danny L. Sewell, Fort Bragg, NC Albert Freeland, Fort Knox, KY Julian Delgado, White Sands Missile Range

#### **1999 DPW MACOM Support Executive of the Year**

George McKimmie, USAREUR, Germany

George McKimmie is currently the Chief, Army Housing Division for the Assistant Chief of Staff for Installation Management, Washington, DC. However, this award is for his previous assignment as Chief Housing Division, Headquarters USAREUR, Heidelberg, Germany. Mr. McKimmie served in this position for 10 years, with responsibility for a \$403 million annual budget, and 32,000 family housing units. Under Mr. McKimmie's leadership, the Governmental Rental Housing Program was initiated, reducing hardships and the housing shortfall by eight thousand housing units; expensive leased units were divested; the USAREUR Housing Academy was established; and Qualityof-Life standards were developed for unaccompanied and accompanied soldiers.

Other Nominees: Irma Davis, TRADOC, VA Karren Terrill, AMC Installation Support Acty, Rock Is, IL George Barbee, MDW, Washington, DC Daniel C. Hong, 19 TAACOM, 8th US Army, Korea

#### **1999 DPW Engineering, Plans,** and Services Executive of the Year

Dwight Robertson, Fort Leonard Wood, MO

Dwight Robertson has served as Chief, Engineering Design Branch for over 17 years, managing a workforce of 16 and an annual budget of \$21 million. Prior to this, he worked as a Mechanical Engineer for 12 years. Mr. Robertson's dedication and ability have been instrumental in producing high quality facilities, meeting scheduling milestones for the Military Police and Chemical School moves, and successfully managing the multi-million dollar design workload. His innovative use of wide-ranging contracting techniques was instrumental in improving the quality of life at Fort Leonard Wood.

Other Nominees: Sean McDonald, 104th ASG, Hanau, Robin Fisher, 280th BSB, Schweinfurt, Germany Glen Prillaman, Fort Bragg, NC John Culver, Fort Campbell, KY Milburn Cox, Fort Lee, VA William Leonard, Tobyhanna AD, PA Serag Wahba, Fort Meade, MD John Hyndman, White Sands Missile Range, NM Major Christopher Nolta, 19th

#### 1999 DPW Business **Management Executive** of the Year

TAACOM, Korea

Sherry Schwegler, Fort Leavenworth, KS

**Sherry Schwegler** has served as Chief, Management and Systems Division since September 1997, managing a workforce of 6 employees and an annual budget of \$24 million. Prior to this assignment, Ms. Schwegler worked as a Management Analyst/Intern, Real Property Officer, and Customer Operations Officer. Schwegler's inspirational, enthusiastic leadership and program execution have been critical to the effective operation of the DPW. Worthy of particular note was her work on the positioning, development and training of

subordinate staff and the management of critical credit card systems, to include credit card tracking and controls.

Other Nominees: Karl Meier, 409th BSB, Grafenwoehr, Germany Jeannette O. Morton, 417th BSB, Kitzingen, Germany Nancy Guy, Fort Eustis, VA Robert Eldringhoff, Aberdeen PG, MD Rhonda Hayes, Fort Meade, MD

#### **1999 DPW Housing Executive** of the Year

Michael Ackerman, Fort Bragg, NC

Michael Ackerman has been Chief of the Housing Division at the Fort Bragg Public Works Business Center for six years, managing a workforce of 219 employees and an annual budget of \$28.6 million. Mr. Ackerman's leadership, customer care initiatives and expert management of housing activities have improved the quality of housing and enhanced Fort Bragg's reputation. His groundbreaking work with the Business Occupancy Program, extensive renovation of playgrounds and family housing neighborhoods, and soldier support initiatives has provided a beacon for the rest of the Army.

Other Nominees: Kenneth Day, 293rd BSB, Mannheim, Germany Jon Henderson, 98th ASG, Wuerzburg, Germany Charlie Williams, Fort Riley, KS Katheryn Cooper, Fort Rucker, AL William Evans, Fort Lee, VA Clarke Howard, Fort Meade, MD

#### **1999 Installation Support Program of the Year**

U.S. Army Corps of Engineers, Far East District

This award recognizes the Far East District's support to the installation RPMA mission. The U.S. Army Engineer District, Far East (FED) has provided exceptional support for the Eighth U. S. Army's environmental, civil engineering, and programming needs and has proved to be an



## **Army Chief of Staff speaks out on preparedness**

by Alexandra K. Stakhiv

The most anxiously awaited speaker of this year's combined DPW Training Workshop, ENFORCE and Senior Leaders Conference was by far the Chief of Staff of the Army. At least an hour before his slated arrival time, participants began milling into Fort Leonard Wood's Lincoln Hall auditorium hoping to ensure a good vantage point.

"Our business is warfighting" began General Eric K. Shinseki, addressing the standing room only crowd of DPWs, engineers, senior executives and other interested parties. "The soldier is the centerpiece of our formations and those not in uniform are here to help us."

"We must never lose sight of the fact that our non-negotiable contract is to be ready to *fight and win* when called on. We must be decisive in victory. We have to win, not 10-7, but 90-0. And 90-0 in terms of warfighting means defeating the enemy decisively with overwhelming combat power." Shinseki explained that today's strategic environment is complicated. There are remnants of the Cold War as well as



MG Robert Flowers (left) escorts General Eric Shineki off the stage.

new threats the Army must be able to respond to. "The Cold War may be over, but we still carry its vestiges complex, diverse threats, tactics, techniques and procedures." The Chief of Staff emphasized that while the Army must be flexible enough to respond to the many types of missions it is currently performing, it still must be able to fulfill its Title 10 obligations of fighting and winning the nation's wars. "We all have certain tenets that apply to us," he said, "but warfighting is No. 1!"

Shinseki went on to explain that all of the warfighting doctrine really boils down to a few simple rules of thumb:

**1** We win on the offensive. We have to be able to defend well; however, offensive combat is what makes for the 90-0 win. So we need offensive capability.

**2** We must initiate combat on our terms. We intend to initiate combat on our terms, which means at the time and place of our choosing.

**3** We must gain the initiative and never surrender it. This means retaining the initiative, even if we have to temporarily transition from the offense to the defense. We are always seeking ways to maintain pressure on the enemy and limit his options while keeping ours open.

(continued from previous page)

indispensable team member of the 19th TAACOM DPWs. The district's extraordinary response to the devastating floods in August 1998 enabled U.S. military installations to quickly recover. The district also executed 11 supplemental MCA projects and 17 OMA to MCA conversion projects that replaced facilities destroyed by flooding. The district also executed \$125 million in normal Major Construction projects, completed designs for the 121st General Hospital Renewal Program, executed a large JOC program, and processed eighty-five delivery orders for crucial projects. Their efforts greatly enhanced readiness and the quality of life for U.S. military forces and family members. (Accepting the award was COL David J. Rehbein, Far East District Commander.)

Other Nominees:

U.S. Army Corps of Engineers, Tulsa District

#### 1999 DPW Support Contractor of the Year

ITT Federal Services International Corporation (FSIC), 415th BSB, Kaiserslautern, Germany

FSIC has been the Kaiserslautern Military Community's contractor for engineering services for 19 years, and has an established reputation for sustained top-quality performance, flexibility, and total customer satisfaction. Its work centers in Kaiserslautern, Landstuhl, Pirmesans, and Miesau support 1,700 facilities situated over 1,100 square miles, and a population of 15,000 military members and civilians.

Integration between FSIC and the DPW is seamless, insuring customer requests are handled quickly, with high quality craftsmanship and extensive dialogue with management and customers. Their creative approach to reducing costs led to a cost avoidance and savings exceeding \$150,000 in 1999. (Accepting for the contractor were corporate officers: Gary McGraw, Project Manager, ITT FSIC Kaiserslautern, and Pete McKinney, Vice President/Director Systems Support Group, ITT Industries.

Other Nominees:

G.W. Hastings Construction Co., Fort Sill, OK

First Occupational Center of New Jersey, Picatinny Arsenal, NJ



We must build the momentum rapidly and then win decisively. Transitions are what take the momentum away from us — moving from defense to offense, conducting river crossings, and performing breaching operations can slow you down. They change the way that battles are fought. All commanders must face transitions, and how they handle them is what determines the outcome. We must be prepared to win the transitions so that we can be prepared to continue the attack.

"Mastering the transitions for the Army has strategic implications as well," continued Shinseki. "In today's strategic environment, a unit can go in on a peace operation and in 20 minutes find themselves in the middle of a hot firefight." He emphasized that the Army must be able to make that transition if necessary. "Our soldiers need to be equipped, trained, and ready for that possibility."

Shinseki described how our country's elements of power

include economic, political, information, and military facets. He further pointed out how the nation leverages those elements of power against a host of threats and challenges in order to achieve our goals and influence our interests. There are several points of stress around the globe, however, that can potentially limit the nation's ability to meet its goals. "Today's points of stress are many—just look at China, Taiwan, India/Pakistan, Korea, Middle East, and the Balkans," Shinseki said.

To protect our interests in security, developing stable markets and advancing democracy, we must use our tools and apply them wisely. Shinseki named terrorism, traffic in narcotics, organized crime act as complicators to our success. "We have no good tools to use against the complicators," he said. "These

complicators are dangerous because they represent money that can buy weapons of mass destruction. They have a tremendous capability, and they can challenge our elements of power.

"The Cold War is over," said Shinseki, "but we designed today's force for combat in the Cold War, European scenario." That force, according to Shinseki, is in need of transformation in order to meet the demands of the strategic environment of today and

road—Shinseki stressed two principles. The first is that the combat platform must be "low observable," meaning difficult if not impossible to hit. "The technology is out there," said Shinseki, "and we're asking the S&T community to come up with the answers." The second principle is that the platform must be capable of early discreet targeting that will allow for the crews to "kill a target every time they pull the trigger." We are striving for a long-term

> transformation where our Army will become:

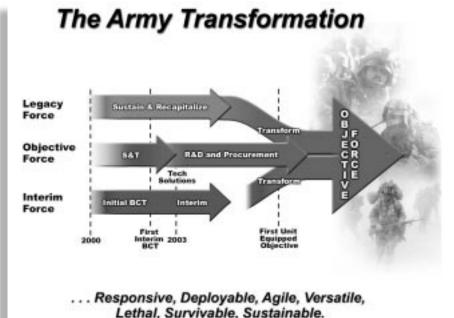
- Responsive
- Deployable
- Agile
- Versatile
- Lethal
- Survivable
- Sustainable

We are currently working to fill the first two brigades of an "interim force" (made up of the best off-the-shelf equipment) at Fort Lewis. And in 8-10 years the Army will begin fielding the first elements of the objective force. The entire transformation won't be complete until somewhere

between 15-20 years down the road. Until then, we hope to have about eight brigades equipped with the best money can buy off the shelf today. Those interim brigades will fill the gap and provide us with the ability to better meet the demands of the operational environment.

"Under the transformation, said Shinseki, "the quality of our soldiers will not change. The Army is people. The quality of our youngsters is very much a driver of this process."

"It's all about opportunity and leadership. No college classroom can provide leadership skills. It's the way that we train them. Every day that a soldier spends in the Army is a leadership immersion experience," concuded Shinseki. PWD



tomorrow. "But right now we are a bifurcated Army," explained Shinseki. The Army's units have become divided between what Shinseki called "our magnificent heavy divisions" and "the best light infantry in the world." "Our heavy divisions," he continued, "are equipped and ready to handle the high intensity warfight, but we are challenged to get them deployed in a timely manner to the kinds of places we need to go today. Our light infantry is not equipped for the high end of the spectrum, but they can get anywhere quickly." Once there, however, those light forces would be hard-pressed if faced with a sudden transition to the high intensity end of the scale.

In designing new platforms for the "objective force"—the Army as it will begin to look 8-10 years down the





### 49th Chief of Engineers bids farewell

Since this was his last conference as Chief of Engineers, LTG Joe N. Ballard used this opportunity to say good-bye and address the audience of DPWs, engineers and the Corps' senior executives on the events of the past year.

# **State of the Regiment**

by LTG Joe N. Ballard

verall, this has been another great year for engineers. Once again, the *soldiers* of the Engineer Regiment have proven themselves to be a valuable asset and team to the nation and the Army.

We can all be proud of the work we have done. There are many examples of how we—as a Regimental team—rose to the challenge. In Kosovo, our Army engineers, together with Seabees and Red Horse units as well as contractors, built two base camps from scratch. This was especially important since it got our soldiers out of the mud in time for winter. And in other contingency operations such as Bosnia and Albania, our engineers were always part of the equation and part of the force package.

Looking a little closer to home, our engineers were active again this year, just like every year, providing disaster relief from hurricanes, ice storms, tornadoes and floods. Last year, we worked the aftermath of the Oklahoma tornadoes, Floyd, and Bret. And this year, you can count on us to handle the storms and hurricanes yet to be named.

Our military forces are deployed around the world and so is the Regiment. We have had soldiers deployed in over 70 countries. From nation-building to peace-keeping to drug interdiction to guarding the borders in Korea, we do it all. Your regiment is supporting operations spanning the globe from Colombia to Bosnia to Kuwait. All in all, it has been a good year and we can all be proud of our work.

It is no secret that this is my last ENFORCE as your Chief. And so I want to take this opportunity to say how proud I am to have been associated with the Regiment and the soldiers that belong to it. Especially those soldiers, of ALL ranks, whom I have gotten to know over the years and who are not in this audience.

During my 35-year career, I have always been impressed with the quality of our soldiers and their dedication. Now some of you may think that 35 years is a long time. Well, maybe it is and maybe it isn't. When you get to be my age, you definitely won't think yourself as old! Some things change, but not as much as you might think.

In my 35 years of service as an engineer, I have served the Regiment in times of war and times of peace. If you stay around long enough, you will do the same. The fellowship and friendship of officers and enlisted is probably the thing that I will miss most as I leave active service.

But, it's time to transition. That time comes to everyone and I can assure you that I will maintain all of these friendships. Never forget that I am a stakeholder in this Regiment as you will all be! Retirement does NOT mean you just fade away as an old soldier. There are plenty of opportunities for stakeholders to remain active in the Regiment. Just look out in this audience and ask Max Noah, Sam Kem and Jack O'Neill.

Let me share a few personal observations and thoughts with you. The Engineer Regiment and its officer and NCO Corps are sustained by their values. Those traits are the things that make them successful. Make no mistake about it. They are the foundation of our organization and I'd just like to just touch on them briefly.

 Pride— Our young officers and NCOs need to have pride in the Regiment. That pride is gained by being challenged with difficult deployments, training and missions. But we, as senior leaders, need to understand that our soldiers still want and expect challenges. Driving a UPS truck is a lot easier than driving an M113. Working in an office is a lot easier than being in the middle of real-world deployment. I think even our youngest soldiers understand that. They want to be challenged! And when they accomplish tough missions, then it's critical that we develop and foster a sense of accomplishment and pride. This is what we can offer—we don't have stock options—but we offer intangibles that are just as valuable!

- **Service** Ultimately the reason that we are here is to serve our nation. The Army will never be accused of overpaying its people. Unfortunately, too often, officers and NCOs are more worried about their careers than just serving faithfully. We need to emphasize to our subordinates that we value selfless service. It simply can't be any other way.
- **Sacrifice** Everyone in the Army is familiar with sacrifice. I'm preaching to the choir now! But, when someone makes a sacrifice for the good of the Army or the unit ...... then we need to recognize that sacrifice and not just act as if that is what we expect.
- Doing your best— We need to encourage our soldiers to do their best and that shouldn't be too hard. Most people want to do their best they want to feel that their efforts



make a difference. But, sometimes your best isn't good enough. In those cases we need to get away from the zero defect mentality and encourage and even reward them even though they did not accomplish their mission. The trick is to know when they have given their best.

Most of you understand the importance of pride, service, and doing your best. I'll even go a step further and bet that everyone in this room understands these concepts. But it is still important to reiterate them because it's very simplethe people in this room will, by and large, shape the future of the Regiment.

Our Regiment can only be strong if we create soldiers and leaders that have pride in their service, do their best and are willing to make those sacrifices. It's an awesome responsibility, but you are all up to the task!

This has been one of the most challenging years the Regiment has had. I have already mentioned some of the good things that we have done this vear. But it has been a tough year for the Engineer Regiment. Although our soldiers have performed magnificently, we have had a number of setbacks.

We would be kidding ourselves if we said all is well with the Regiment. To begin with— the Army transformation has posed several problems for the Regiment. The transformation is one of the most sweeping events to take place since the Army was downsized. This transformation will not only affect the size and structure of the engineer forces, but we will have to change the way that we fight.

It's the biggest change we have had in decades! Let's face it. We were fighting for a place in a heavy division, but the Army doesn't want heavy divisions or heavy brigades. The Army is going lighter and smaller and getting more focused.

It is sad to say, but the Engineer Regiment did not anticipate the shift to a more deployable Army. This shift leaves us with a significant gap in our ability to conduct breaching operations and gap crossings. It doesn't take a Ph.D. to figure out the bottom line. For us to get back on track, we need to

start planning for a lighter, more agile engineer force.

Now I've just mentioned some of the issues and effects that were caused by the Army's transformation. But we can't just blame all our challenges on the transformation. Because I'm in a room surrounded by family, I can be blunt and say that we haven't helped our own cause.

Right now, each part of the Regiment has a tendency to stay in its lane. Just like good engineers and problem solvers, each of us worries about the immediate future. We even do it here at this conference in small ways. For example, are USACE District Commanders invited to the Council of

"It is sad to say, but the Engineer Regiment did not anticipate the shift to a more deployable Army. \*\*

—LTG JOE N. BALLARD

Colonels? Do they force the issue? Do Battalion Commanders attend any of the USACE workshops, even though most of them will command Districts at the O6 level? DPWs, have any of you been guilty about taking problems to your installation Commanders before working the engineer channels?

The bottom line is no group is looking out for the Regiment's strategic interests. We are all suffering—Active and Reserves, heavy and light forces, BDU and Class B wearers.

I'm a student of change. I realized long ago that to effect change, you really have to change an organization's culture. People worry too much about change, instead of working the change. So let's focus on solutions.

First, we must act collectively. The engineer force structure of the future will be reduced. We have got to do more with less. The only way that we can possibly accomplish this is to work as a coherent and cohesive team. We will have to leverage capabilities such as tele-engineering, with which we had great success in Bosnia. We will have to develop mechanized breaching techniques that are not manpower intensive, and the platforms will have to be light and air transportable. We need to leverage the capabilities of every engineer on the battlefield, to include the Seabees, Red Horse and Prime Beef units.

We have to adapt better to changing situations. In the near future, the Army will begin testing the medium weight brigades. We need to pay close attention to the results of the training exercises. We need to quickly develop tactics, techniques and procedures that the engineers can use to accomplish their mission. We need to make sure we understand the type of augmenting forces that are required for each type of contingency operation.

We need to be more flexible. By that, I'm talking about the speed with which we react to changes. We cannot waste time and energy supporting old structures and techniques. We have got to innovate and we have got to anticipate the needs of the Army. Let's get ahead of the changes and stop reacting to

None of this is going to happen without the support of our maneuver counterparts. This is very important to understand and recognize. We need to build support, and that support can only be built by portraying a united front. By this, I mean that each element of the Regiment needs to support the whole. For example, active duty engineers need to form close working relationships with their reserve counterparts. They share ideas, equipment, and material, and, they tell the maneuver component the value of their service.

When the Engineer School develops a final position, everyone must support that position. For example, how many of you have bad-mouthed the ACE to your maneuver buddies? You hurt us! IN and AR don't have these unity problems to the same extent that we do. And in DC, for example, all assigned FA officers get together regularly to discuss branch issues, no matter where they work.

Last year we developed a Regimental Vision. There are probably more than a few of you in this room who have not read it and you are the leaders of the future. To support the



Army's vision, we will have to identify those aspects of the Regiment that may not support the Vision. We cannot spend all of our time *knee jerking* at changes that affect us.

If the new medium weight brigade proves in the field that an engineer company can do the job, we need to stand up and say that. But we also need you to stand up and identify other unforeseen problems and recommend solutions. Why? Because there will always be an Engineer Regiment.

The future is coming at us fast. Some people might say it has already run over us. I say we still have a chance to use this transformation to create an engineer force that is leaner and more effective.

We have to be a cohesive force. Not just with our fellow engineers, but with our comrades in arms. Right now, the Army is also struggling with some old constructs, and two blue ribbon panels were formed to look at worrisome trends in retention and recruiting.

There are lots of junior NCOs and junior officers (CPTs) voting with their feet. It will be up to the senior officers and the senior NCOs to fix this situation. Look around you. It's YOU who are the senior officers/NCOs.

We must also change some of the perceptions out there, to include the zero defect mentality which we hear so much about. The only way that this will happen is if we work together. Let's make the Army fun again!

Several months ago, in the Washington Post, there was an article that questioned the integrity of the Corps of Engineers. This is especially troubling since our integrity as a steward of the nation's lands and waterways is our hallmark. It is one of our core competencies.

The questioning of the specific project in mind really didn't bother me. Every project has proponents and opponents. That's the price of doing business. You can't please everyone. It was more troubling that they questioned our integrity.

I can tell you that the accusations are false. However, we were tried and sentenced without due process. But I came into the service with my integrity intact and I'll leave the same way.

Integrity is the coin of the realm for an Army officer. If you don't have it, then you might as well pack your bags because you aren't worth the cost of being fed. Every officer must have these same feelings and you must instill them in your junior leaders and soldiers. When I am challenged on an issue, I simply ask myself is this the *right thing* to do? If you're going to get into trouble for doing one of two things, doing nothing or doing something, you might as well get into trouble for the right reason. If the answer to the question— Is this the right thing to do?—is yes and it's legal and follows regulations, then your conscience is clear.

I'm not going to talk about the Army values. You know them. Values will be the one constant in the transformation to come. The Army may become more deployable. We may be able to have smart minefields that can be activated by remote control. But when the dust settles and your boss or the American people want a candid straightforward answer, you will still need an Army officer or NCO who will tell the truth, speak candidly and maintain his integrity. Values will always get you through the rough spots.

Everyone has heard of the 4 Cs and an "I." I'll just briefly mention *personal courage*. Personal courage means being able to do the right thing when it may go beyond your own narrow interests. The bottom line is we'll survive this attack and come out OK.

If I had to do one thing over, it would be in the area of communications. We need to communicate better at all levels. Public affairs and public relations are more than just responding to media inquiries. It is getting the word out on the good things that we do. It is telling the American public and the Army about the importance of the Engineer Regiment.

We have one of the best stories to tell. We do so many great things for the Army and the nation. But we only tell it to ourselves! Why? We're engineers and we hate to praise ourselves and pat ourselves on the back. Most people don't even know what we do— and we don't tell them! Not even our customers!

Our maneuver counterparts don't even understand our contributions to the battlefield. They think it was a fight just to get a company into the Intermediate brigade.

Despite what you may have heard or read, we're a great organization. *Government Executive* magazine ranked us the #2 organization in government, just behind the Coast Guard. And they don't even compare to us in size, complexity, and scope of mission. We are a people organization. They gave us an A in this category—best in government for training employees and promoting best practices for diversity and promotions.

The reason that we have had such a difficult time defending ourselves from unsubstantiated comments from one employee is that we did not do a good job of publicizing our work.

For example, the environmentalists are after us because they think we put river commerce ahead of the environment. What they don't realize is that we are the environmental stewards of this nation. We do all wetland permitting and recently increased the requirements for requesting a permit. We do numerous environmental cleanups as part of FUDS and FUSRAP. The bottom line is that the Corps is a green organization and is becoming greener everyday, but the environmentalists don't see it or know it.

So please, communicate! We simply must get better at getting our story out! Advertising and media communications are critically important in the business world. And it is just as important in the Army world.

Let me leave you with the thought that there will *always* be an Engineer Regiment. Its future rests in the hands of the people in this room. We owe it to the nation and to the engineers who have come before us to use our collective energies to create a Regiment that is capable and responsive. Nathan Hale was right. Paraphrasing his famous thoughts—we either live together as a team or we die together! There is no middle ground.

As I leave, I feel fully confident that the Engineer Regiment and the Army will survive and prosper. It's been a good year and there are many more to come!





### ASA (I&E) talks about managing Army posts

The Honorable Mahlon Apgar, IV, Assistant Secretary of the Army for Installations and Environment, speaks about managing Army posts by applying 12 new tenets designed to guide Army doctrine, planning, budgeting and execution.

# **Tenets for the 21st century**

by Mahlon Apgar, IV

or 150 years, the Army set the national standard for communities of excellence in planning, design and construction. After mobilizing "an enormous building machine for both world wars," the Army held on to that plant well beyond its useful life through the Cold War. Most of the temporary wood structures were built during WWII with a life expectancy of 5 years. Despite an aggressive program to demolish those buildings, many are still being used for installation functions today.

As a result, we have many "junk" buildings, which force us to undermaintain the many "jewels" we still have because we use our limited funds to support the junk. This is the "best of times" to reverse the trend, because the Army leadership is already forging new thinking about our "core business" to implement the Secretary's and Chief's new Vision ... and installations must be part of that new approach.

Here's our proposed vision for Army installations to align with the new Army vision: "By 2020, Army Posts will be world-class military facilities that fully support and satisfy our warfighting needs, while providing soldiers and their families with a quality of life that equals that of civilian communities.'

To achieve this Vision, we have developed 12 Tenets to guide Army doctrine, planning, budgeting and execution. While these tenets challenge current practices, they are built on established precedents in the Air Force, in state and local governments, and in private master-planned communities.

Standards must define the quality levels and attributes of design, construction, maintenance and services for all Army posts. Because we

don't have comprehensive, global standards for installations now, quality varies widely. Most of these can be adapted directly from existing Army standards, the Air Force, and "best-inclass" private sector developers.

Selection of programs and projects for resourcing, construction, maintenance and services must be **based on Army-wide needs.** Since requirements always exceed resources, the Army's approach has been to spread resources equitably, on the principle of "fair share." The result is a large number of average posts. We need to use an objective, fact-based Army-wide process for directing funding to specific posts/

Strategies for managing Army posts must guide all decisions on resources and activities affecting the Army's mission at each location.

Each post needs a carefully developed strategy to guide its long-term development. Post leadership needs to look at the whole community. Post strategies must include both the physical assets and the resources that it takes to build, maintain and revitalize them.

Commanders must embrace the entire process of managing Army posts, including planning, acquisition, building, operation and dispo**sition.** Policy makers and executives need to broaden their concept of the post as a full-fledged operational, economic, social and political community or small city. We need to "partner" with all the organizations that work together to produce a thriving post community community facility and service providers, local government agencies, non-profit enterprises, volunteer service organizations and contractors.

The organization structure must integrate Army-wide strategies, standards, priorities and resources, while enabling post-level execution and actions. An ideal structure would be similar to a landlord-tenant relationship, where the landlord (the Secretary of the Army) has overall responsibility for *creating* and *sustaining* real estate assets, while the tenants (MACOMs, divisions, agencies) use the assets within the guidelines set up by the landlord. Local, on-post management must be responsible for performing day-to-day maintenance, enforcing standards, and allocating housing and office space.

Site configurations must respect the topography and environment while capitalizing on features that improve "amenity value" for occupants and users. Where we could cluster houses, shops, and recreation together to improve convenience, create a feeling of community and lessen the need for driving around, we scatter facilities that force young soldiers to have cars. At the same time we are preserving and protecting the environment with our policy, we are creating and maintaining conditions on our posts that worsen the environment with another.

Master plans for each post must show how work space, living space, open space and cyberspace will be designed, developed and managed.

The plans for developing, operating, and maintaining the post need to move from the project-by-project focus they have now and become comprehensive tools that can be used to guide decisionmaking over the long term. Space plans need to address aesthetics and well as functionality. Master plans are



essential, but they must become more robust to actually influence and shape our posts in a harmonious as well as functional way.

Designs for construction, renovation, repairs and maintenance must respect each post's dominant architectural style, and encompass site features, landscaping and interior details, as well as building exteriors. Style is important, but it doesn't necessarily *cost* more. It *does* require close attention to aesthetics and details. Here are three basic guidelines for every structure on main post areas: New buildings should fit in with the existing buildings around them; colors and materials should complement each other; and sidewalks, streetlights, signage and other outdoor elements of "street furniture" should complement the style of the buildings.

Staffs must have extensive school training and applied experience in large-scale community development **and management.** Our facilities management teams do a lot with a little, but we don't have all the essential skills we need to manage posts. Very few of our people have formal training or broad community management and development experience. We care so much about cost that we do not emphasize value. We need to create "smart clients," redefine the DPW role, refocus the contracting process, and establish a HQDA staff unit. These four actions should help us acquire the skills we need.

Systems must apply established standards, evaluate needs, inform managers of results, and reward *innovation in meeting needs.* Army systems need to be improved in defining performance measure, synthesizing data in usable formats, infusing measures into ISR, and rewarding quality improvements. Personnel systems should be set up to recognize and reward efforts to improve the quality of our posts. For example, we have just established the Secretary of the Army Awards for Historic Properties to recognize other organizations—including local community and volunteer groups— who partner with us in restoring and reusing Army historic buildings

Stewardship of the natural, cultural and built environments must infuse planning and execution of

operational missions as well as community development and management strategy for each post. Applying this tenet will take emphasis in training and operations. We have to combine conservation techniques with development techniques everywhere. In part, this means preserving and reusing our historic properties, to enhance our posts as well as conserve resources.

Sustainment must be achieved by commanders, staff, partners and contractors who interpret policies and practices by their choices. We need to find ways to infuse our entire culture with the principle of sustainment. We have to institutionalize the philosophy of quality of life and stewardship among Army people at all levels.

We're also going to try to break the vicious cycle of "facilities creep" where the tendency is to acquire more space for every new mission on top of an already bloated inventory of space and facilities.

Working with what we've got, however, will not fully achieve our vision for our posts—which could cost around \$41 billion, according to ACSIM. And we're not going to get much, if any, new funding. But, if we can work with Congress to gain new authorities, we can unlock significant value in our assets and base operations to help us get there without substantial funding increases.

Basically, we have a broken fiscal model that we have to fix. We pay for long-term assets with short-term financing. We don't incentivize savings and re-investment

We are heavily restricted in basic real estate actions. We allow installation funds to migrate for other priorities. And we routinely defer maintenance projects until things break, when it's more costly to fix them than it would have been to maintain them.

We start with a huge—but illiquid— asset base of facilities with a book value of \$220 billion, about the value of our equipment stock. The market value is unquestionably greater; we just don't know how much.

What could come of all this? Significant results if you accept the analog of what major global corporations have achieved in similar situations. Here's the potential scope of applying a new fiscal model to our business:

- \$20–60 billion of capital by releasing part of that \$220 billion in real estate asset "book value"
- ▶ \$700 million–\$1.4 billion from better utilization and operating savings
- \$100 million or more in construction savings

With a new fiscal model and new authorities, we could:

- Fund new facilities and major renovations against a long-term "capital budget"
- Reinvest savings generated from improving post management and operating efficiencies in a specific program for facilities modernization, upgrading and maintenance
- "Trade" excess assets with developers in return for modernizing or constructing facilities
- Extend the military housing privatization authorities to other types of on-post facilities, and
- Recapitalize the Army's huge stock of historic properties through tax incentives and a new Army Historic Properties Trust Fund.

Now is the time to begin laying the groundwork for those while we're working the Tenets into the Army culture and current systems within our existing resources.

As you return to your respective posts, please take note of what needs to be done to improve its appearance and condition. Ask yourselves Why does that storage area look like a dump? Why aren't those old barracks painted? Why don't we have clear, attractive, consistent signage? Why don't we turn that beautiful old house into apartments for junior officers and NCOs? You are the ones who will have to make the vision a reality. All I can promise is that the road ahead will be uphill and full of potholes all the way.

However, if we are ever to give our soldiers and their families what they deserve, it has to start with us and it has to start now.

There *is* a different way— and the Air Force has shown it consistently for nearly 30 years with strong leadership; high standards and attention to design; department-wide corporate priorities technical direction and support; robust staffing; and a tough-minded approach to protecting installation resources.

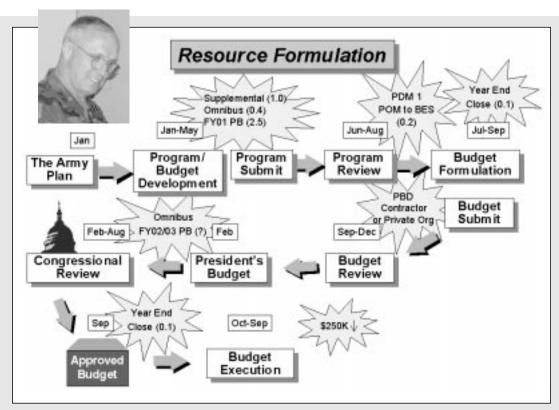


Here's an excerpt from MG Jerry Sinn's (Deputy Assistant Secretary of the Army (Budget)) briefing on...

## The Army **Budget**

by MG Jerry Sinn

here are three stages in the budget process – formulation, justification, and execution. Formulation begins while the POM is being finalized. Program budget guidance and instruction are sent to the field to obtain command budget estimates (even years) and resource management updates (odd years).



During the OSD summer review of the POM, the arstaff/secretariat begins actual budget formulation. The Army budget estimate submission (BES) is developed based on field input, CBEs/RMUs and the OSD program decision memorandum (PDM). The BES is approved by the senior army leaders and submitted to OSD.

The next step is to take the BES through the OSD program budget decision (PBD) review and the defense planning resource board. Major budget issues and the services budget estimates are submitted to the DPRB for review and approval. Upon approval, OSD submits to OMB the DOD portion of the president's budget.

It is extremely important to maintain linkage with the field when defending the army resource position during the OSD review.... PWD

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To get a handle on the Air Force's situation, we compared five sets of Army and Air Force installations. Overall, we have 20% more people but 40% more square footage and 50% more land than the Air Force's, yet, contrary to our expectations, most of our buildings are roughly the same age. However, the Air Force spends about 60% more per square foot and 130% more per facility in RPM than we do.

When the cost of military personnel is added, the Air Force spends almost two and a half times as much per square foot and three and a half times as much per facility. The average professional in an Army DPW office is responsible for four times the square footage and 3 times the number of facilities as the Air Force counterpart.

In deciding where to focus resources, we need to manage our \$220 billion real estate holdings as a portfolio. Each project should be evaluated two key criteria. How critical is the post and its capabilities to our mission? How effectively is the current investment at the post being used, and would additional investment provide acceptable returns?

Here's an example: a Strategic Mobility project—an airfield—would be "High-High" if located at a major divisional post with high utilization and low building cost; but it would be "Low-Low" if it were located at an Administrative Post or school, and had low utilization and high building cost.

The ISR has numerous measures that can underpin this type of strategic analysis. We don't lack data, but we do lack synthesis of that data in a clear structure of Army-wide priorities.

Using the results of this ongoing analysis, we could ensure that the value gained from new investments would bring maximum benefits over time.

We're beginning with PPBES— our core management system— to redirect current funding wherever possible and "piggyback" on the "transformation strategy" now underway. Here at Headquarters, General Van Antwerp's staff and mine are working to insert the Tenets into the Army Planning Guidance Memorandum (APGM) and DoD guidance— especially the Standards, Selection, Skills, Strategy and Stewardship guidelines. And PA&E is "helping" us insert them into the subsequent stages of the POM and technical guidance, including Execution. We're also tackling the roots of facilities and installation costs. PWD



# Fort Leonard Wood Commander offers his perspective on managing installations

by Alexandra K. Stakhiv

past assignments as a District Engineer and Director of Public Works and current position as the Commanding General of Fort Leonard Wood, MG Robert B. Flowers gave "A Commander's Perspective on Managing Installations."

Opening his presentation with a spectacular pictorial tour of the post and some of its new missions, MG Flowers encouraged the conference participants to take advantage of the breaks and any free time to tour his installation and see how he was managing Fort Leonard Wood.

He quickly moved on to address the Directors of Public Works by telling the audience members that the single most important thing that they needed to take back with them was that they were *valued* members of the team.

"Almost every activity on an Army base involves the Directorate of Public Works." This includes not only utility support for special events, fire inspections in the barracks, installation signage, facility renovation, and office space for a new mission, but housing for students attending schools on the installation. There is environmental involvement as well, when as for example at Fort Leonard Wood, regulatory permits affect the training conditions. ...and the list goes on.

Public Works

For an
electronic copy of the
latest Digest, go to: http://
www.isd.belvoir.army.mil
and click on publications.

"There is always constant pressure on the DPW to execute projects as soon as possible," he said. "Fort Leonard Wood is no different than your installation in that respect. We have involvement

across the installation. Our construction demands are always *needed yesterday*. We have constantly changing priorities and, like most installations in recent years, we have reduced manpower not to mention budgets.

"Your dwindling resources are evermore constrained," continued Flowers. "You now have daily A-76 pressures. Your RPM dollars continue to be the bill payer for Army initiatives, and you are constantly reacting to leadership changes in priorities.

"Nevertheless, you are expected to and you *must* provide your commanders with the ability to make impacts on the installation. You must come up with solutions to impossible situations.

"So let me repeat the message I want you have to carry back to your installations," continued Flowers. "Everyone who works at a DPW is a valued team member. As valued members, you bring valuable skills to the table. It's your job to make things happen. You have to do the best with what you've been given by bringing common sense to chaos."

Flowers encouraged DPWs to hone their ability to provide logical arguments with a view towards the future of the installation to help insure smart decisions are made about the infrastructure on their installations.

"The worst thing you can do is sit at your computer all the time, looking for answers," he said. "So get out and interact with your customer often. By doing that, you can find out the things that



MG Robert B. Flowers

can be done easily, often with little funding. A good example is working on your lighting improvements during physical training in the early hours and not during surge periods, power outages. Don't schedule maintenance during a surge in population either. During the summertime, we're really plussed up here at the schools, so we don't want to do maintenance then. You may also want to check on how your efforts to improve infrastructure from a timing standpoint impact on training.

"Be creative. Think out of the box. Look for ways to solve problems outside of the normal way of doing business."

Here Flowers gave some examples of the types of things they've done at Fort Leonard Wood:

- Institutued a pager system for emergency service order calls during nonduty hours which allows employees to work out of their homes and relieves a lot of the pressure on them.
- Renovated an old, unused Red Cross building into the Ike Skelton House, which is used for families of the terminally ill.
- Converted some old family housing on Indiana Street to barracks for E5s and E6s.
- Put the Master Plan on the web for easy access by everyone.
- Use Corps manpower to help out during surge periods.

"Develop the skill of always talking in a language that the Commander understands," continued Flowers.



# **Career Program 18** slated for changes

by Alexandra K. Stakhiv

n his update to the DPWs on Career Program 18, Mr. William A. Brown, Principal Assistant for Military Programs, outlined the progress of the Leadership Development Program and

touched on some of the upcoming changes in career development, vacancy recruit-

ment and longterm training.

There are 15,300 people currently enrolled in Career Program 18, with 85 percent in USACE, began Brown. The remaining 15 percent are scattered throughout the Army. While the Chief of Engineers

has the overall responsibility for Career Program 18 (Engineer and Scientists) as its Functional Chief (FC), Brown works with it on a day-to-day basis as the

Functional Chief's Representative (FCR).

66We are concerned about

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We're working hard at

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and making sure that people

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all that they can be. 99

-WILLIAM A. BROWN

The Leadership Development Program (LDP) was initiated in FY 98. After putting the LDP together, Brown

> visited all MACOM commanders to get their endorsements. "The agreement is based on a *swap*—if you send me someone, I'll replace him/her with someone else," he said.

The three-year program prepares GS 12s and 13s for leadership positions and consists of rigorous coursework, mentoring, and a six-month

developmental assignment. Applicants are asked to detail their education, experience, training and desired developmental assignments.



William A. Brown

Brown has found that most people want more experience of a kind similar to what they already have, although those in non-supervisory positions usually request assignments in supervisory fields. Those in the technical fields want to remain there.

"We created a board to evaluate the applications and recommend assignments which will round out the individual and make him/her competitive throughout the Army," explained Brown. "However, the FC and the FCR make the final determinations. For the first time in the history of this type of program, we decided to accept

(continued from previous page)

"Speak to him in terms of improving the training condition, not in terms of how to meet a DPW requirement."

Flowers cited their project sales brochures (TA244, reception barracks, family master plan) as a prime example.

"Stay focused on areas where the Commander can find trouble, such as Notices of Violations (discuss air permit) and statutory limits on project spending or overspending on General Officer Quarters," he said.

"Cultivate relationships," Flowers continued. "I firmly believe that over 75 percent of a person's success is based on the type of relationships that he's established over time. As part of the DPW team, you're faced with a number of hard problems every day. Without good relationships, your ability to be successful is limited."

According to Flowers, synergy is another important skill for a DPW to develop. Reading Stephen Covey's definition of synergy, Flowers said, "Synergy is the fruit of thinking win-win and seeking first to understand... It's not compromise...It's the creation of third alternatives that are genuinely better than solutions individuals could ever come up with on their own."

Using the MANSCEN standup as an example of synergy, Flowers pointed out what it took to achieve the final product from the standpoint of everyone working together—DPW, Corps, TRADOC Engineers, and the ASCIM staff. Another example was using a design charrette and a planning charrette for siting the new starship barracks project.

"Make this your way of doing business," he advised. "Never forget that you and your DPW team are valued team members to the commander. Your job is tough, but you must stay focussed and keep a positive attitude. The real key to success in the future is you, the DPW."

"The missions that DPWs perform are absolutely critical to the success of the Army. You significantly impact the training environment. You provide for the quality of life not only for our installation workforce, but for those who call the installation home. Keep working hard. I for one am very grateful for what you do each and every day," concluded Flowers. PWD

As the Digest went to print, MG Robert Flowers was nominated as the 50th Chief of Engineers.



all the applicants—no one was ruled out."

To put that into context, Brown said that in the old program for 14s and 15s, they used to get about 50 applicants a year. For the LDP, they got 279 applications the first year of its existence! Unfortunately, there was only enough money to cover a maximum of 75 applicants. Thanks to Chief of Engineers LTG Joe N. Ballard's decision to supplement the money the Army was pro-

viding for the program, the LDP budget quickly grew from \$850,000 to \$1.5 million!

The 279 applicants were divided into three groups by a lottery based on social security numbers. (See chart at right.)

"We would like to see more people from the DPW in our program," said Brown. "We are concerned about the imaginary line between the DPW community and the districts and divisions. That's why everyone who applied from a DPW was sent on a developmental assignment to a district or division. We're working hard at breaking down that barrier and making sure that people have the opportunity to be all that they can be."

"We have moved (into developmental assignments) the first two groups and are about to move the third group," he continued.

They are tracking the program to see if there is a success rate higher than

the 50 percent in the old program. In this way, they can make any necessary changes to ensure that the program meets the needs of the Army. During its brief tenure, the LDP has already been so successful that other career programs are thinking of instituting similar ones. The first class will graduate next year, and another call letter will go out in a few months.

Despite the high dropout rate when it comes to taking developmental

CP18 Leadership Development Distribution of Applicants

	MILITARY FUNDED	CIVIL FUNDED	TOTAL
Group 1 Initial Final	35 17	64 45	99 62
Group 2 Initial Final	36 19	58 26	94 45
Group 3 Initial Final	15	71	86
TOTALS	86	193	279

assignments due to acceptance into other programs, new jobs, promotions or medical reasons, Brown remains highly enthusiastic about the program. With its heavy emphasis on competitiveness, mobility, loyalty, accountability, as well as diversity, he is confident the program will promote a better

understanding of civilian leadership in a military environment and thus promote a strategic, corporate focus.

"Selecting officials are encouraged to give graduates special consideration for any vacancies they might have," said Brown. "Students who fail to complete the program within the three years, refuse to

accept a developmental assignment, or fail to submit their semi-annual reports are automatically dropped from the program for non-compliance."

Brown went on to make some predictions about our future workforce. "We will see an increase of 30 percent in age group 45 to 54 and 55 to 64," he said. "The age group 35 to 44 will remain at 25 percent of the labor force. Our population will definitely be more racially diverse. The Black and Latino labor force will become equal in size (19 million), while Asians and some other segments of the population should see a slight increase."

Job opportunities in the coming years out to 2006 are estimated to rely heavily on service industries, said Brown. These include healthcare, social services and engineering as well as information technology, database administration and system analysis. The high-tech jobs pay 78 percent more than other jobs—an average of \$53,000 compared to \$30,000 for starting salaries.

The future will bring even more change to Career Program 18, and Career Program 55 (Real Estate), in its recruitment policy for vacancies. The once dreaded SCAPs

have been eliminated. There will no longer be any automatic evaluations and referral lists for supervisors. Brown added that this should help to eliminate any bias.

"Instead," he said, "an electronic desk side notice funded by USACE will be used to apprise individuals of all vacancies in the Army. The individual then has the option of deciding which if any he/she wants to apply for."

In the long-term training arena, the opportunity for employees to enhance their skills through graduate courses will be vigorously promoted, continued Brown. Graduate work can be approved on a full- or part-time basis. It is up to the applicant to get accepted into a university within a 150-mile radius of his/her current office. The career program will pay for the selected courses, which must meet the needs of the Army.

"We want to make these opportunities available to more people," he concluded.

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# IISAIRITON VAIRUGIIA

# **An interview with Fort Lewis' Business Center leaders**

by Alexandra K. Stakhiv

'he Fort Lewis Business Center, a partnership between Fort Lewis Public Works and the Seattle District, has been in place for almost three years, and according to all accounts, it's a big success. But as with all new programs, there is room for improvement.

On a recent visit to Seattle, I spoke with the leaders of this joint venture and was surprised to hear from both sides that many of their lingering problems stem from "culture." This is something they feel is their greatest challenge. However, all agree that very slowly, things are changing.

"There are many things we still need to consider to get to our desired end state," said John Brobeck, Chief of the Engineering and Contract Management Division at Fort Lewis Public Works and a driving force in the partnership. "Despite the fact that we're further along than any of the other installations employing the business center concept, we're probably only at the 30 percent mark now.

"A lot of it is attitude, culture—the

way we do our business," explained Brobeck. We need to concentrate on getting customer-focussed rather than being project- or process-focussed. That's always been a big problem.

"There are ways the Corps does business that have been ingrained for years and trying to change that is not an easy task. We've done a lot of good things, but we have a long way to go. I'm not pointing any fingers, but everyone is protecting his own turf. It's not only here, but on the whole installation. For example, we have a local contracting office here. So the more work I give to the Corps, the less they're going to get."

COL Richard Conte, former Deputy Commander at Seattle District, has been the Director of Public Works since January 2000. With each step they take, he feels there are institutional

ways of doing business that have to be overcome. For him too, culture remains the biggest stumbling block.

"I think that our communications," said Conte, "although much improved within the Business Center, need to be expanded to other parts of my organization

and the district so that people at the lowest operating level feel comfortable talking with one another and resolving problems. Right now, both sides feel they need to run things up the flagpole to get anything done. I like getting people together on specific issues, because bringing the right people together gets dialogue started."

The DPW has begun process reviews, internal to the organization, to open up communications. Conte has also set up a joint work management team, which includes elements out of the shops, Corps construction offices and Project Managers (PMs). He calls these working groups "mini partnerships in the making.'

Steve Miller, the Corps PM Forward at Fort Lewis, also agrees that culture is still at the root of many of their problems. "We're starting to talk about having all the mechanical engineers mothered by one resource manager," said Miller "rather than having mechanical engineers distributed throughout construction, design and operations and other branches. But program management here is still very much in the hierarchal pipeline. COL Conte is trying to convert his organization into a more matrixed one, a learning organization where information is shared, where people go where they're needed, where people can reach out and grab the talents they require."

"I've probably been most successful in the area of developing and empowering the project managers upstairs to do what needs to be done," said Miller. "They now have a real sense of ownership of their projects and the whole process. I've tried to develop relationships throughout this organization at all levels, from budget officers to people in



Steve Miller (left), the Corps' PM at Fort Lewis, often meets with COL Richard Conte, DPW at Fort Lewis, to discuss Business Center projects.





Olton Swanson, Deputy Chief of the Program & Project Management Division at Seattle District, works hard to fulfill Fort Lewis Business Center requests.

work management, because relationships are an enormous part of what we do."

Over the past three years, Miller has kept an "open door" policy. He makes time for anyone who comes to see him with a problem, whether it's someone from the shops or the deputy director. They all get the same treatment. Once he connects the person with the problem with a person in the Corps who can solve that problem, Miller steps aside.

Conte's philosophy of how to do business relies heavily on integration with the service providers, whether they represent the Corps of Engineers, contractors, or other elements on the installation.

"I'm encouraging the Corps to put more management and functions into the Business Center," said the new DPW. "One of the PMs in the Business Center recently told me that he's learned a lot as a PM in this job and that it has really broadened his experience base to start managing projects. He's now sitting within the organization that is going to operate and maintain the projects that he delivers. He gets immediate feedback when things go wrong, as compared to his experience in construction with designs that failed. Now he can see the broad spectrum of what the delivered product has to stand up to. I think he's a much better PM for that reason and we're going to get a much better quality product in the long run that will save us money as well.

"What I hope to accomplish over the next couple of years is to integrate the

MILCON/construction programs with the Business Center," said Conte. "I'd like to continue to refine our processes so that we're more cost-effective and look at total costs of projects, not just our management costs, and see if there are any improvements that we can make.

Miller sees room for improvement as well. "Our current management systems are cumbersome, time consuming and not very cost-effective," he said. "We have a fairly heavy overhead in our management systems," he said. "Theoretically, the management system should be driven by the workload. In reality, the financial and contract acquisition system drive our business. So we've made progress there.

"The bottom line is they've been managing projects for years," explained Conte, "one piece at a time—design, construction, and so on, but the warrantee hasn't been managed at all. Suddenly the PW is stuck with the building."

As a result, anything that may have been learned about the building at the start of the process is lost. Both Miller and Conte agree that life-cycle project management needs to be stretched beyond what they've done traditionally.

Even with the new PM business process, they look at the project as design/construction and then turn over the keys. This needs to be expanded through the warrantee phase. According to Conte, design and warrantee phases are the two phases where they can most benefit from an interactive

relationship. "When you look at both of those phases and, to a lesser extent, construction, there's a gap between what organizations do and what needs to be done. Neither side is fulfilling its obligation there. In the long term, we can provide better service if we engage in an integrated business process from the very beginning."

By getting those working groups together, Conte hopes to pinpoint those gaps and let the people who have seen those problems for years solve them. He plans to identify processes that would be applicable to all projects. "We have agreed on what our roles are as well as the roles of the PMs and the Corps," he explained. "We are currently refining our expectations of how all those people should interact with one another."

"We expect our shop leaders to be involved in design and during the initial inspections at the construction stage so they can see the workmanship standards are set up right and the quality that we're putting in the projects," added Miller.

Miller wants the shop workers to understand the *concept* of what they're getting, as well as the technology, and get the training that is appropriate to that technology. Then when there's a problem, there will be a context to work with.

According to Miller, who also serves as the Business Center's senior PM, too much process can make things difficult. "We have a planning process, a construction process and an operation and maintenance process," he explained. "It all affects the same building, the same team. Inside the district, traditionally, we had a design group and a construction group, and when something broke down, it became a design deficiency or a construction deficiency. Those words could trigger people. We've done a lot through personnel to make that one

"One thing we've learned is that if you bring construction people in during the design stage, you'll have feedback on what's *buildable*. If we get the people who have to operate and maintain these facilities to give input during the design and construction stages, they can tell us what sort of systems will work and what sort of systems need to be written out of the installation criteria."

In this way, they can do a lot in the future to reduce the O&M cost of a building. The PM plan captures the



customer, designer, constructor and people from the shops. Getting the right group of people together for the specific project is a critical factor for success.

Brobeck also emphasizes the importance of life-cycle management, not just starting a project and turning it over. In between the start and end, there are a lot of business processes, including project scoping, preparing engineering packages, acquisition services and managing contracts, he said. "We can't eliminate any of the major processes, but we can do some streamlining by using the best business practices available. The Fort Lewis project managers in the Business Center have been operating in a *life-cycle* process for years. We are sharing our life-cycle business process experience with the COE project managers, and eventually, the entire Business Center team will function in a life-cycle project management approach.

"We are probably the leader for Multiple Award Task Order Contracts (MATOC)," said Brobeck. "At Fort Lewis, we like to *package* our work. That's related to acquisition planningwe do good planning, look at the different requirements and then we package

and execute it. But the key is if you manage the package, you're going to manage the process. We don't manage dollars— we manage packages and related actions. If I take several projects and put them all into one contract, it will take a lot less effort than having 300 contracts and it will cost less too.

"To do our work, we need to have acquisition authority in the technical arena," Brobeck emphasized. "ACO, O/O, COR and QAR authorities help us to administer and modify contracts and task orders. The Ordering Officer authority (issuing, administering and modifying task orders for indefinite delivery type contracts) is new and we started it at Fort Lewis. Seattle District has been very progressive in making it work for us. We can't do our work efficiently if we don't have these authorities."

"We're trying to get the appropriate training and work with our contracting officer on the assigned authorities," said Olton Swanson, Chief of the Military Programs Management Branch and Deputy Chief of the Program and Project Management Division at Seattle District. "Steve (Miller) has set up a training plan for his folks and himself to get them up to speed, so they'll have the full contract authority they need.

"Because John Brobeck is an Ordering Officer, there is a lot of flexibility. John is working very closely with our contracting chief, Kent Paul, and we have every confidence in him. He's been to all the training, so we're very comfortable giving him maximum authority. John has Ordering Officer authority for most of our indefinite delivery contracts up to \$500,000."

In addition, each PM in Swanson's group has a COR authority for AE contracts, which is the lowest level contracting authority. Nevertheless, it allows a lot of flexibility in terms of setting up negotiations with contractors, issuing requests for proposal, analyzing the proposal and comparing it to the government estimate. In other words, they can do everything possible to get the work under contract except sign on the dotted line.

Despite the various levels of authority, Swanson thinks every military PM should be given contracting officer representative (COR) authority to be more functional on the job. In the Business Center, PMs are delegated COR authority for contracts.





### Army announces Annual Fire and Emergency Services Award winners

he Army recently announced the Annual Fore and Emergency Services Awards for this year.
They are:

- Fire Department of the Year— Fire Chief Terry Armstrong, Holston AAP
- Civilian Fire Fighter of the Year— Mr. Joshua Diede, Hawthorne Army Depot
- Military Fire Fighter of the Year—SGT. Jerry Conner, Fort Drum
- For Heroism— Specialist Paul DeWitt, Fort Rucker

These installations/individuals are automatic candidates for the identical DoD award to be presented on 30 August 2000 at the 2000 DoD Awards Banquet in Dallas, Texas.

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Now that the relationship between the Seattle District and Fort Lewis has solidified, the Public Works side wants the Corps to move additional functions into the Business Center. Those functions would include anyone working on the product at Fort Lewis. That means all the PMs for the various kinds of work, not just the reimbursable work they're doing now, but the environmental work and military construction (MILCON).

"We have already phased some of that in," said Swanson. "We have PMs at the Business Center working on MILCON— the Fort Lewis resident staff at the Business Center. We recently moved our construction management group (8 people) next door to Public Works to make them more accessible."

For Swanson, looking from a Corps perspective, moving the rest of the PMs on post is not such a simple issue. He asks himself how far can the district go to accommodate one customer before it begins to compromise its ability to please all of its customers?

"If I move all the PMs who handle Fort Lewis projects," explained Swanson, "my flexibility to assign those folks work is diminished. With most of my PMs physically still located at the district, I have ultimate flexibility."

While Fort Lewis represents a big chunk of Seattle District's MILCON work, almost 30 percent, the district also takes care of four air force bases. From an overall military program perspective, the work across the district's bases is *cyclical*. As one base winds down, another gears up.

"The MILCON workload at Fort Lewis has been down, but we're about to move to this intermediate brigade reconfiguration," said Swanson. "As a result, there will be a large amount of work at Fort Lewis over the next four or five years, about \$300–\$400 million in construction. So for that period, I'll assign some MILCON PMs to that group. Once construction is completed, we'll have to relook at what to do with them."

Seattle District can hire additional people for a specific duration if there are two large ongoing projects, said Swanson. "We do this with the understanding that at the end of the period, we'll relook the situation."

Swanson has witnessed a big change in his *business*. "Seattle District is doing something different. We've taken the PM Forward concept and applied it across the organization so that each base we service has a PM Forward." he said.

Historically, the district has looked at in-house projects as opportunities to keep the workforce fully engaged and making sure that they're getting the experiences and maintaining the competencies they need to stay effective as an engineering resource to all of its customers. However, Swanson is concerned that if they move all that work to a business center, then the view towards a corporate entity may become a conflict. If he locates his people remotely, they won't have the relationships with the staff in the district to work through an in-house project effectively.

"There are things that we do with the Air Force side or our non-appropriated funds customers that can be applied to the work we do at Fort Lewis," he said. "If you have the Business Center never interfacing with the rest of the project management community, you lose that cross-fertilization.

According to Swanson, best value can be looked at in many different ways. It can be the lowest cost to the customer and it can be an innovative way of doing things that drives cost lower.

"On the O&M reimbursable side, we're doing things very differently than we did five years ago to get that best value," Swanson explained. "When we look at costs for the MILCON program, we are well below the costs that Public Works workers put together for the types of project they find themselves more involved in. Historically, we were applying the MILCON model to doing the reimbursable work— MIL-CON projects were \$3–50 million and the reimbursable work was typically under \$1 million. So our costs were high! We've come back with a lot of innovative ways to execute that work.

We developed a small projects team which the Business Center uses. We do all of our PM for reimbursable work out of the Business Center. Previously, Public Works had a PM within their organization for reimbursable work and we had a PM for reimbursable work. That went away with the Business Center. So you see, we've really focused on that best value in eliminating increasing costs and duplication," concluded Swanson.

Swanson sees his role as finding that best value for the customer. "I'm going to agree with 99 percent of what I hear about a business center concept when I focus on the soldier's perspective. When I step back and focus on the overall COE responsibility to its many customers, I need to do the most that I can for any one customer without neglecting my duties to the rest."

As you can see, there are many differences between organizational perspectives, but the key players at the Fort Lewis Business Center are convinced that together they can work them out. It's just a question of time.

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# **Modernizing Army Barracks**

by Debbie Reynolds

s the OACSIM Unaccompanied Housing (UPH) Team Chief, I conducted two Barracks Workshops during the DPW worldwide conference. The barracks MILCON program, which constitutes approximately 70 percent of the Army's Military Construction program, generated attendance by many DPWs and Corps District representatives. They jumped at the chance to discuss the status of the program and interact with others dealing with the day-to-day challenges of providing housing for the Army's single soldiers.

The Army continues to be on track to meet the 2008 buyout of all permanent party barracks, said Reynolds. The workshop produced excellent discussions on the challenges installations face in meeting the complex tasks involved in the planning, programming, and execution of the Barracks Modernization Program.

One of the most challenging aspects of the program for an installation is determining where to house the soldiers

during the renovation of an existing barracks. The attendees of the workshop identified different ways their installation has adapted and worked this issue, including:

 Delaying the demolition of buildings in other areas of their installation and using those as swing space, allowing more soldiers to reside on-post.

Diverting excess family housing units to permanent party barracks and assigning 2-3 soldiers to a dwelling unit depending on the size.

DPWs also expressed their concerns about the elimination of contingency funding in the Military Construction Program. HQ USACE issued guidance to their divisions and district to design to a 95 percent program amount to allow 5 percent for an internal contingency. I provided the group with the



Debbie Reynolds (left) discusses the Barracks Modernization Program with a conference participant.

FY 02 and 03 OSD cost caps for the Barracks buildings, Soldier Community Buildings, Company Operations Facilities, and Dining Facilities. OASCIM will not approve proceeding with a project unless the designs and estimates are within the cost caps.

The Army's centralized Barracks Upgrade Program (BUP) which consists of OMA and Quality of Life Enhancement, Defense (QOLE,D) funding, is providing approximately \$150 million in maintenance and repair (M&R) barracks projects per year. In FY 00, the Army allocated all \$77 mil-

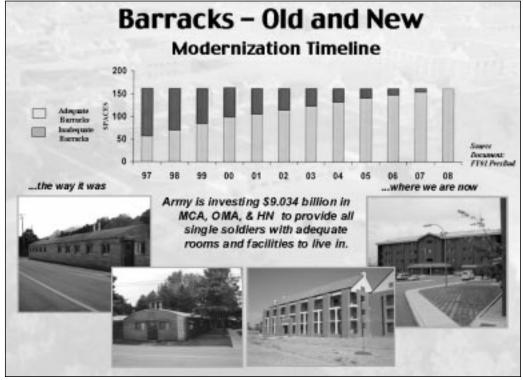
> lion of the QOLE,D funding to the barracks program. An additional \$150 million in OMA funding has also been provided for barracks projects in FY 00.

DPWs and Corps districts are working diligently to have all the MCA and BUP projects executed for FY 00 this year. Excellent execution is the key to continued support of the approximately \$600 million per year in MCA for the barracks program through 2008.

The DPWs encouraged each other to institute a network that will provide good ideas and lessons learned on the barracks projects and share those ideas.

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Housing Division.



# **DPW Training V**



Above: CW2 John F. Fobish proudly displays Prime Power skills and accomplishments.



Above: BG Robert Griffin (left) talks about Division Reorganization with COL Pete Topp (center) and COL Gary Wright (right).



Above: Greg Tsukalas (left) and George Braun reminisce about old times.



Above: State-of-the-art engineer construction equipment uas set up outside the exhibit area for attendees to view.

Left: DPW Training Workshop/ ENFORCE 2000 participants relax during a break.

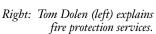
# Vorkshop 2000



Above: (L to R)—Ed Irish, John Grigg and Ron Niemi led the workshop on Installation Support.

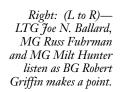


Above: COL Robert Shirron (center) shares some Fort Bragg successes with MG Milt Hunter.





Left: Workshop participants enjoy the many exhibits set up in the "Bubble Area."





y the time of the DPW Training Workshop, word had already gotten around about the proposed civilianization of DPW positions currently held by the military.

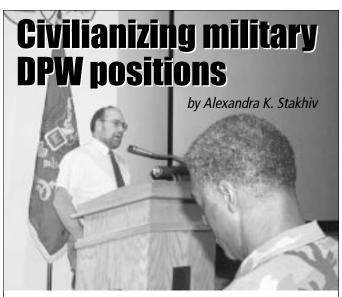
"I fully expect that a decision will be made, over a period of time, to convert all of the military DPW (Director of Public Works) positions in the United States to civilian ones," said Mr. George F. Braun, Deputy Chief of the Installation Support Division of Military Programs at HQ USACE. "This will be a difficult change as far as I'm concerned, since I've been in the public works business for 28 years."

Chief of Staff of the Army General Eric Shinseki wants to fill combat units to keep Army strength at 100 percent; he needs troops for the new intermediate brigades. The General has directed a series of Institutional Army Reengineering Functional Area Assessments (FAAs) to identify organizational and force structural efficiencies in the Army's performance of its Title X functions.

"To put it simply, the FAAs look at how the Army does its business and the kinds of people we put in that business," said Braun. "The mission is to identify reductions due to redesigning. We have to implement Institutional Army Redsigns by FY 01 and continue through POM FY 02-07. This will ensure a trained and ready Army, fully capable of executing its role within the National Military Strategy. At the same time, we must continue to maintain our Army values and ethics."

"The Army is looking at its core structure to find out how we can make changes and reduce the TDA Army green suiters to find more military spaces for TOE units," Braun continued.

The mission areas that the FAA assessed included intelligence, medical support, training, how we structure our Army headquarters and how we manage our installations. The FAA concentrated on contracting, legislative changes, Reserve Component support as an alternative, and converting military



George F. Braun (speaking) introduces MG Milt Hunter (foreground) at the 2000 DPW Training Workshop.

positions on the installation TDAs to civilian TDAs. The FAA focus did not include OCONUS installations since most of the military overseas are typically in TOE positions supporting installations.

Focusing on managing installations, Braun asked "How would the civilianization of military positions impact on garrisons in the United States?" "All agreed to a green-suited garrison commander, a chaplain, a lawyer and an IG. MACOM commanders said they could cut all the garrison positions in the DPCA, DPW, DOL, DEH etc. That impacted on about 50 military positions in the DPW."

The Installation BASOPS Functional Area Assessment, chaired by COL Egan (ACSIM), was tasked to find military positions in the garrisons to civilianize. The study concluded that we can give up 4800 spaces—only about 50 are engineer spaces (with 25 at DPWs) and the rest are Operations Officers and NCOs. Most of the 25 DPWs are 06 and 05 slots at FORSCOM and TRADOC installations.

The completion target is the 3rd Quarter of 2001, assuming 100 percent backfill of \$300 million. The method may be attrition—as military retire, they will not be replaced and the civilian deputy will step in temporarily and perhaps eventually become the DPW. Every MACOM in the Army has some civilians in DPW positions, said Braun.

The Corps was tasked to lead the study on career field impacts. Taking into consideration such operational issues as A-76 studies, ongoing contracts, and loss of leadership, the team attacked the question of what needs to be done to prepare for the change and ensure success.

There are still many questions to be answered.

First, what kind of essential training and development does an individual need to become a successful DPW? The training issues discussed included revising the CP 18 ACTEDS, incorporating military basic training modules at the intern level, mandating Army leadership courses, shad-

owing the military in forward deployed units, and attending AMSC, CGSC, other SVC schools.

"Typically, we don't send our civilians for any military or Army leadership training," said Braun. "Should the Army Management Staff College be made mandatory for these positions. What about DLAMP or the Senior Service College? Is a college degree in business or management desirable? How about DPW schooling?"

Second, what kind of essential experience does an individual need to become a successful DPW? "Does he just walk in the door? asked Braun. "Does he need to be a deputy first, or a chief of EP&S, or have a job outside the DPW?"

Third, what are some of the critical skills and capabilities that an individual needs to become a successful DPW? Good leadership, management, and communication skills are a must. "But what technical skills are necessary?" asked Braun.

Fourth, what kind of changes do we need to make to the career program track to ensure quality DPWs? "How should CP 18 (Engineers and Scientists) change to accommodate this change?" said Braun. "The vast majority of civilians now in the public works business are in CP 18. We're meeting with the MACOM career program managers to work this issue.

"The Army is in the process of creating a new program field for



# LTC Larry D. McCallister named top Military **Engineer of the Year**

by Torrie McAllister

TC Larry D. McCallister, P.E., the Area Engineer for the Europe District Engineer Group, Turkey, is the U.S. Army Corps of Engineers' Military Engineer of the Year. He is also one of top ten federal engineers honored by the National Society of Professional Engineers during Engineer Week in February at the NSPE the 2000 Federal Engineer of the Year Award presentations in Arlington, Virginia.

LTC McCallister is responsible for all Corps of Engineers engineering activities in Turkey, Italy and Spain. He as honored for providing outstanding construction and engineering management support that improved quality of life and the combat readiness of all U.S. Forces and their families plus numerous Department of Defense and Department of State agencies in the three country area.

He provided rapid construction support for two NATO combat operations—Operation Northern Watch (Northern Iraq) and Operation Allied Force in former Yugoslavia. He also assisted the U.S. Air Force in Turkey with earthquake damage assessment and repair and provided critical, time sensitive infrastructure and force protection improvements.

As Area Engineer and Commander of the U.S. Engineer Group in Turkey, he headed the Corps of Engineers rapid response team of technical engineers who support the 39th Fighter Wing at Incirlik Air Base, where the Engineer Group is stationed. Shortly after his arrival in July 1998, two devastating earthquakes hit southern Turkey. Base family housing, the military shopping complex and power and utility systems were damaged. LTC McCallister's team was honored with the U.S. Air Force Outstanding Unit Award for its highspeed structural analysis and construction support to repair earthquake damaged facilities.

Two weeks after the quakes, a Turkish labor strike paralyzed nearly all contract operations on Incirlik Air Base for three months. Under LTC McCallister's leadership, the Corps of Engineers was able to keep construction contractors working on emergency repairs and projects critical to the success of Air Force missions over the no-fly zone in Northern Iraq.

In Albania, from April to August 1999, he was Base Camp Engineer for U.S. the forces in Albania supporting air strikes against Serbian military targets to bring a swift end to hostilities against ethnic Albanians in Kosovo.

(continued from previous page)

Installation Management (CP 29)," Braun continued. "This program is an expansion of the current garrison executive position career program. How do we fit in? We hope to phase in DPWs at MACOM and DA level jobs into this program. Currently, it is difficult for individuals in the DPW to aspire to the higher-level installation management positions. There

are no senior executive (SES) positions in the DPW and only a handful of GS 15s."

Other important issues raised concerned the desired length of a DPW rotation (3-5 years?), what the supporting grade structure should be and the need for civilians to get the respect of the military. On a lighter note, all agreed with Braun that a positive attitude and a sense of humor would go a long way towards success. PWD



LTC Larry D. McCallister

Under his leadership, the Corps of Engineers built a base camp for 6,200 soldiers with Apaches and tank killing capability for Operation Allied Force. Oversaw four months of intense engineer activity — first building the base camp at Tirana Airport; then tearing it down and restoring the landscape as U.S. Forces moved to Kosovo to begin peace keeping operations.

LTC McCallister was commissioned in the Army in 1978 through the ROTC program at University of Missouri-Rolla (UMR). He has served in the military at numerous command sand staff positions through the United States, Germany, Korea, Saudi Arabia and Iraq, Somalia, Albania and Turkey. He has earned Bachelor and Master of Science degrees in Civil Engineering from UMR and a Ph.D. in Civil Engineering from the University of Texas at Arlington. He is a registered Professional Engineer in Texas and Virginia.

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Torrie McAllister is the public affairs officer for U.S. Army Europe.

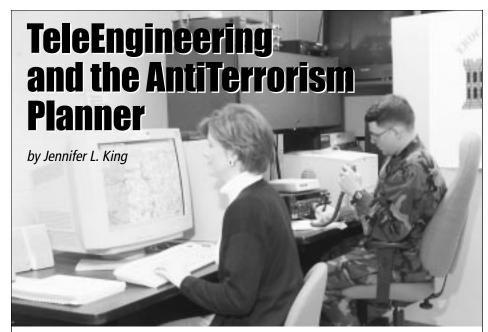


t the ENFORCE 2000 Conference at Fort Leonard Wood, engineers and scientists from the U.S. Army Engineer Research and Development Center (ERDC) presented a breakout session on TeleEngineering and the AntiTerrorism Planner.

Dr. Larry Lynch, Director of the TeleEngineering Operations Center (TEOC), opened the session with an overview of the ERDC and the TeleEngineering Operations Program (TE). TE, which is being developed under the proponency of the U.S. Army Maneuver Support Center, began as a technology demonstration to provide rapid solutions to the Department of Defense (DoD) in support of maneuver engineering and force support engineering using command and control architecture and existing communications systems. TEOC provides answers to engineering solutions that are not readily accessible in the field. The concept for TE was derived from the ERDC support provided when the Sava River in Bosnia flooded in 1997 and is continuing.

During the breakout session, James Ray, a project manager in the ERDC Structures Laboratory, presented an example of one of the ERDC capabilities that can be accessed through TeleEngineering: assessment and repair. Ray showed several examples of damaged bridges and explained how ERDC has been able to assist in identifying the military load class for the damaged

This reachback technology gains importance as the engineer's role in force projection and force protection increases. Force projection issues require the engineer to rapidly assess the in-theater transportation network and expedient engineer-emplaced substitutes. Force protection issues require the engineer to rapidly assess the threat to the force from both conventional and terrorist weapons threats and then erect countermeasures to these threats. Deployed engineers can become overwhelmed due to the limited expertise or computational capabilities available in the field. Coupling the active duty engineer force with the most highly skilled DoD civil engineering practitioners and computational assets available will pro-



Rhonda Taylor, Deputy Director of the TeleEngineering Operations Center, reviews a response prior to sending the answer to the requester.

vide the support required for force projection and force protection.

The overarching concept for TE is the exploitation of the U.S. Army's command, control, and communications architecture to provide a linkage between engineers and the appropriate non-deployed subject matter experts (SMEs) for resolution of engineer challenges. This exploitation will allow engineer SMEs to evaluate the problem, engage in dialogue with the deployed individuals performing the work, and provide solutions to the problem. Solutions to the problems being addressed will exploit state-ofthe-art technologies from the Army's research and development community, SMEs within the TRADOC community, DoD high performance computing assets, the expertise of the U. S. Army Corps of Engineers Districts and Divisions, private sector construction industry experience, and the knowledge base of academia.

After the bridge assessment demonstration, Matt Hossley, also a project manager in the ERDC Structures Laboratory, presented a short demonstration of the AntiTerrorist (AT) Planner. The AT Planner is being developed to assist the engineer officer in planning and implementation of the protective measures required for force protection.

Recent experience has shown that the demand for military engineering in support of antiterrorism has risen dramatically as the Army is drawn into a succession of operations other than war. The AT Planner is a Windows-based application suitable for operation on a notebook computer by combat engineer officers and draws on completed and ongoing research related to the protection of fixed facilities from terrorist attack as well as work on field fortifications.

In the AT Planner, emphasis is placed on the evaluation of structures, windows, personnel, and limited other critical assets. Structural components are defined from common construction materials for frames, walls, roofs, and windows. Damage to the building components is calculated using algorithms from the Facility and Component Explosive Damage Assessment Program (FACEDAP) computer program.

Once the appropriate standoff is determined based on expected explosive size and an acceptable level of building damage, the AT Planner provides information on a vehicle velocity calculation to aid the development of a barrier plan. The software allows the user to view an image or a Computer Aided Design file of the site plan, locate assets on the site image, and display building



### Sustainable Design and Development—latest buzzword

by Harry Goradia

ustainable Development and Design. Many of you have heard this latest buzzword and are won-Udering what that means. Let us see if we clarify this mystery:

What is it? Sustainable Design and Development (SDD) is an evolving concept and process for the systematic consideration of current and future impacts of an activity, product or decision on the environment, energy use, natural resources, the economy and quality of life. Industry and government agencies continue to develop SDD criteria, checklists and scoring systems. Incorporating SDD into installation and project decisions will help integrate best building practices, technologies, energy conservation and environmental considerations into installation planning and facility projects.

In engineering terms, it is the design, construction, operation and reuse/removal of the built environment in an environmentally and energy efficient manner. It meets the needs of today without compromising the ability of future generations to meet their needs.

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#### damage in the 2-D plan view and a more detailed 3-D graphical format. Blast walls can be placed in front of structures and the resulting damage to a protected building calculated. Calculations of hazards from flying window glass have been incorporated along with user-defined pressure-impulse curves to give structural engineers more flexibility in evaluating structures.

Hossley explained that some comparative studies were completed for air blast in urban areas. Additionally, there are other software tools for evaluating hazards from chemical and biological weapons, but they are not included in the AT Planner.

AT Planner Version 1.3 was released in August of 1999. User feedback and recommendations are being incorporated into future releases of the AT Plan-

#### **References:**

- Executive Order 12852, President's Council on Sustainable Development.
- Executive Order 13101, Greening the Government through Waste Prevention, Recycling and Federal Acquisition.
- Executive Order 13123, Greening the Government through Efficient Energy Management.

These Executive Orders and related White House task forces on Global Climate Change recommend that Federal Agencies adopt the principles and concept of Sustainable Design and Development.

#### **SDD related initiatives:**

- ARMY has established policy that the concept and principles of Sustainable Design and Development shall be incorporated into installation planning and infrastructure pro-
- The ACSIM and USACE have been taking various actions to include SDD into infrastructure projects, guide specifications, A&E selection

criteria, value engineering, and design-build contract language.

- Technology Showcase Projects are being considered to seek opportunities to infuse new technologies and innovative business practices into the planning, programming, design, contracting, construction and operations of all Facilities projects.
- A tri-service group developed a three-day SDD training course. A team made up of USACE personnel will use this course to train Army personnel at selected USACE Districts beginning the latter half of June and continuing through the summer into early in the first quarter of FY01. DPW personnel are encouraged to take advantage of these wonderful training opportunities. ACSIM, MACOMs and/or pertinent District will notify installations of these workshops.

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ner such as a full implementation of the FACEDAP methodology allowing more editable material properties for structure definition, better visualization of personnel injuries, additional retrofit measures, and analysis.

Based on threat, mission, and site considerations, the AT Planner provides a tool for evaluation of protective measures, expedient structure designs, and standoff guidance. The AT Planner provides military engineers a critically needed analytical capability for fulfilling antiterrorism missions.

ERDC includes all of the Corps of Engineers dispersed research and development facilities and supports the Army and the Nation with high quality research, leading edge technology, and state-of-the-art facilities. The ERDC organization consists of eight unique laboratories in four locations: Construction Engineering Research Labo-

ratory at Champaign, IL, Cold Regions Research and Engineering Laboratory at Hanover, NH, Topographic Engineering Center at Alexandria, VA, and the Coastal and Hydraulics, Structures, Geotechnical, Environmental, and Information Technology Laboratories in Vicksburg, MS.

For additional information on the ERDC TeleEngineering Progam, please contact Dr. Larry Lynch at (601) 634-4274 or e-mail: lynchl@TeleEngineering.usace.army.mil. For additional information on the AT Planner, contact Matt Hossley at (601) 634-2971 or e-mail: wgatplan@wes.army.mil. For additional information on ERDC, contact Jennifer King at (601) 634-2505 or e-mail: kingj@wes.army.mil. PWD

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nstallation Action Plan (IAP) Workshops, a means of program review and budget preparation begun within FORSCOM, have expanded in their application, to the majority of AMC facilities. Large cost savings have been cited as having been realized as a direct result of these workshops. This is what IAP workshops can accomplish, and why.

The principal reason for holding an IAP workshop is that they provide an opportunity, in a relatively pleasant environment or atmosphere, for all interested parties in an installation's cleanup program to examine that program, both as a whole and on a projectby-project basis, and attempt together to make that program a more sensible and effective one. They also are an effective means of reinforcing to one and all the Army's desire to focus as much as possible on risk reduction as the primary motivation for taking actions. Because of a combination of natural follow-on effects from the preceding, and vigilant emphasis on realistic cost-estimating, the overall cost-tocomplete for the installation is often lowered.

For IAP Workshops to continue to be effective as tools in achieving costeffective and timely completion of the IRP, they, like any other effort at reaching that twofold goal, must be sustained by firm commitment from the Army leadership toward the same objective. Finally, we should recognize specifically just what it is that IAP workshops can accomplish, and focus our use of them accordingly.

#### **Process Description**

Here is a brief description of what takes place during a typical session. The (nominally 2 1/2-day) workshops begin with introductory briefings regarding the purpose of the action plan and cost-to-complete (CTC), Army organizational funding breakouts, and the Army's strong preference for cost-effective cleanups focused primarily on the enhancement of public and ecological health. Then the action plan is reviewed, site by site, with an accom-

# **Installation Action Plan** Workshops

by Joseph F. King

panying unconstrained budget estimate prepared following the discussion of each site's plan.

The action and budgetary decisions and/or estimates are made using the "50-50" rule (versus worst case); that is, if there is a greater-than-even chance that a particular action will need to be taken, or that a particular cost will be incurred, then that action is planned for, and that cost is entered into the budget. The reverse is also true—if an event or cost, even if easily envisioned, is not expected to occur with a probability greater than 50%, then it is dropped from further consideration.

This approach has the goal of producing realistic total budgets, not inflated estimates. Although on an individual basis the predictions may indeed prove to be occasionally incorrect, the aggregated Army-wide results ought to be fairly accurate, and far more realistic than if the common procedure of constantly adding contingency after contingency to every cost estimate is followed.

Finally, the last half day is devoted to the preparation of the constrained costto-complete estimate. This is what converts what had been a simple assemblage of projects into a coherent overall program, as the installation team is forced to recognize the relationships among the various projects' bits and pieces, and prioritize and schedule the work to reflect the realistic, limited availability of E,RA funds annually.

#### **Benefits**

**Send message of cost-effective- ness.** As the group discusses each individual DSERTS site, the opportunity is repeatedly presented to drive home the Army message that we are

proud to be a concerned and competent steward of the environment, and we are just as proud to carry out our duty to be an equally good steward of the taxpayers' dollars. Getting value for those dollars is important to us; significant risk reduction should reasonably be expected to be obtained from significant expenditure of public funds. Keeping the group focused on the real goals of planned actions is an important part of conducting the workshop.

**Team building.** IAP workshops present a <u>relatively</u> pain-free opportunity, in an open and fairly relaxed forum, to highlight the Army's dual concerns of protection of the environment and cost-effectiveness (with risk reduction as the primary measure of that effectiveness). A second benefit of a properly conducted workshop is a noticeable increase in "team spirit" among the installation personnel, their "executors," and our regulatory and community brethren. As the workshop progresses, it is gratifying to notice the focusing of everyone's thought processes on the problem(s) at hand, with each contributing according to his ability and viewpoint.

Post, Corps and contractor personnel begin to point out less grandiose courses of action to each other. Regulators get to feel our pain somewhat, and often help us solve our problems, even as they voice their own concerns. Likewise, community representatives have the opportunity to appreciate firsthand the constraints under which we must operate, while at the same time feeling as valued participants in our planning and prioritization process. Don't forget also that it's possible that we ourselves may actually learn something useful from listening to the regulators and the public during the discussions.

Produce major required docu-**U** ment submissions. After all of the smoke clears, the installation obtains a completed action plan and CTC (constrained and unconstrained), professionally arranged and printed, and presumably more focused, realistic



and internally consistent than its predecessor. This, repeated at post after post, represents no small benefit to the Army and its credibility (in relations with both the public and the Givers of Dollars), nor is it an insignificant assist to a usually limited installation cadre, beset as they are with a succession of requirements from "higher" headquarters, amid the "real" requirements related to getting some cleanup done on post. An IAP workshop knocks off some major homework assignments for the installations.

#### Provide much-needed opportunity to view program as program, not just a sum of projects.

Implied in the preceding is the opportunity presented by the workshop for beleaguered installation personnel to take a breath, step back, look at the proverbial big picture of their program (versus their projects), see if they like it, and discuss what might be done to make it better.

**Produce a formal record of commitments.** The workshops effectively provide a formal record of the decisions made. As one project after another is reviewed, the IAP is adjusted to reflect the new path to completion, as is the CTC. Further, notes are made as addendum to the CTC that record the principal assumptions that fed the estimation process. Thus, there is an implicit contract entered into and recorded, site by site and phase by phase, deviations from which can be relatively easily identified as they occur, and reviewed as needed.

Ideal screen and setup for ITR.

An IAP workshop, which looks at an entire installation program, is an ideal vehicle for identifying those sites/projects that would most benefit from the more intense scrutiny of an Independent Technical Review (ITR). These workshops can serve as screening, and also setup, tools for the ITR-they present the basic message of concerned cost-effective environmental stewardship, help establish the framework of (again) risk-reduction as the primary measure of that effectiveness, and then identify those sites whose technical complexity deserves the assistance of the expert team assembled for an ITR.

**Cost savings.** IAP workshops save real money. They primarily do so, over time, by fostering a spirit of cooperation while reinforcing our message of cost-effective stewardship, and by presenting a reasonably benign environment for a realistic appraisal of an installation's cleanup program, not by

"A second benefit of a properly conducted workshop is a noticeable increase in "team spirit" among the installation personnel, their "executors," and our regulatory and community brethren."

> instantaneously slashing budgets and killing worthwhile projects. Most (but not all) of those "savings" represent the effects of making decision and cost estimates based on the best collective judgement, rather than on worst case assumptions and excessive contingency insertions. Indeed, though, even in the short term, there are "real" savings obtained, due to a combination of identification of better mousetraps and of more sensible ways to structure the cleanup effort.

> About 20% of the current projected savings are actually due to changed, better plans. The rest of the savings from previous cost estimates also have tangible effects. After all, as future budget dollars are tagged for elimination (for their original purpose), they may also be brought forward in time to be applied to more near-term actions. One way or the other, the overall program should get completed faster. The sooner projects get done, the sooner the unavoidable carrying and/or transaction costs that accompany them may disappear from the books. In this business, the only good project is a dead (completed) project, and the only good

program is a dead program. IAP workshops, by effectively encouraging better planning, help to kill the IRP, and that's a good thing.

Properly conducted, Installation Action Plan Workshops represent a reasonably effective means of presenting the Army's case for cost-effective remediation, and for producing formal plans and budgets that reflect that ethos. They also afford opportunities for enhancing trust and understanding among the various interested parties, while providing a relaxed environment for reviewing an installation's overall

> cleanup effort, and molding it into a more coherently integrated program. By so doing they help cut costs, produce more realistic costestimates and accelerate program completion.

IAP workshops are not designed to effect detailed technical examination of every detail of an installation's cleanup pro-

gram. They are a useful complement to the more site-specific, technically focused ITRs, and should enhance overall ITR effectiveness. IAP workshops are also not specifically aimed at cost reduction per se; rather, cost reductions from previous estimates, which admittedly often result from these workshops, are more likely due to the combined effects of more focused planning and an emphasis on more realistic decision-making.

It is important to recognize that IAP workshops represent just one means of helping to accomplish the overall goal of cost-effective and reasonably rapid completion of the Army's Installation Restoration Program. There are obviously many other necessary components integral to achieving that objective, starting with effective, firm and consistent leadership from the highest levels.

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# Public Works Business Practices Committee reviews future DPW functions and operations

The Public Works Business Practices Committee (BPC) is an advisory forum to introduce positive change, more business-like operations, and "paradigm shifts" in the way Army public works services are provided. It strives to:

- Recommend policy and procedural changes;
- Advise the [recently re-established] HQDA Installation Management Steering Committee (IMSC) or configuration control boards (CCBs) for information technology (IT) systems (e.g., Integrated Facilities System CCB);
- Refer issues beyond the scope of the committee to the appropriate agency for resolution;
- Examine ways to enhance coordination and public works support provided by or to other DOD or federal agencies.

In the last couple of years, the BPC has been inactive due to personnel turnovers in the Office of the Assistant Chief of Staff for Installation Management (OACSIM) and restructuring within USACE, Office of the Deputy Commanding General for Military Programs. However, the importance of the BPC has been recognized as an essential vehicle for improvement, as well as a forum for MACOMs and installations to have a say in influencing and enhancing their own destiny.

To this end, the BPC has been revitalized and has geared up to conduct a fast-paced (6-month), focused study of future DPW functions and operations to provide the basis for specific key decisions that must be made in the near future, particularly with regard to DPW upward reporting requirements IT systems support/solutions. This proactive study will determine what the DPW of the future (i.e., 5 to 20 years out) should look like; how it should be organized; what should be its business practices; how/what should it expect of its service and base maintenance contractors in terms of reporting and performance.

The results of this study will place the DPW function in a position to be more effective and efficient in the future as well as enhancing customer service.

To accomplish this mission, the Facilities and Housing Directorate (FD), OACSIM, in coordination with USACE, Installation Support Division (ISD) and the Corps of Engineer Research Lab, Engineering Research and Development Center (CERL, ERDC)), has mobilized a multi-functional team of installation experts, augmented by MACOM, IT systems, OACSIM and USACE experts under the auspices of the BPC. Oversight authority for the study resides with the Director, FD, OACSIM and the Chief, ISD, USACE.

From the pool of functional area experts who volunteered to work on this review, two groups were formed to conduct concurrent studies focused on two major areas. The first area concerns the "outside/higher-level" (Congressional, OSD, HQDA, and MACOM) influences that drive reporting requirements. This area will be reviewed by the "Headquarters" group.

The second area will focus more on the future state of the installations/garrisons, and the role the DPW will fulfill as well as looking at "internal" DPW business practices, data/reporting requirements, and information technology solutions that an installation *really* needs in order to conduct its day-to-day business. This area will be reviewed by the "Installation" group.

Because of the two-pronged approach and the desire to fast track the study, much of the work of this part-time team is being done by the groups between meetings, using electronic mail and video teleconferences. To facilitate this "between-meeting" work, CERL (ERDC) has established a web-based knowledge management system coupled with a "threaded discussion" forum. In addition, CERL (ERDC) is providing funding, facilitators and a recorder (for the scheduled meetings) to ensure tracking, coordination, and dissemination of the interim results to the team/group.

The first of three face-to-face meet-

ings was conducted 25-27 April 2000, at the Hilton Alexandria Mark Center, Virginia. After several briefings to familiarize all members with on-going initiatives (Utilities Privatization, RCI, Outsourcing, ISR, Fort Future, AIM-HI, Strategic Sourcing, HQ Redesign, Installation FAA, ACSIM Facilities Strategy, Total Army Analysis 07.1), the team was divided into the two aforementioned groups. Each group was asked to develop issues to be studied with the following considerations/premises:

- Current environment/trends that already exist.
- Contracting/outsourcing/privatization will continue if not expand.
- RPMA funding will not improve in the foreseeable future.

As a result of the group working sessions, the following areas have been identified and prioritized for study:

#### **INSTALLATION GROUP**

- Reorganization/ Restructuring
- Change in focus of PW
- Fiscal policies
- Personnel issues
- Integrated planning
- Customers control the dollars (all activities become reimbursable)

#### **HEADQUARTERS GROUP**

- Determination of future IT requirements and COTS compatibility;
- Map DPW-related financial systems interfaces-consolidate/eliminate;
- Establish and validate baseline of reporting requirements-consolidate/eliminate;
- Develop plan to address cultural mind set changes

The results of the BPC study will be a standalone report, documenting the proposed changes and accompanied by staffable recommendations to affect the changes. Prior to release, the draft and final draft report will be coordinated with the Installation Management Steering Committee (IMSC) and staffed with ISD, MACOM's, OAC-SIM, ARSTAF, GSA, and Secretariats.



### Strategic technology investments

by Dr. Lewis E. Link

he advancement of technology is increasingly shaping the Corps' business practices and evolving the capabilities of the Corps to better execute its mission. The emergence of a USACE strategic vision and the evolving military and civil works strategies to achieve this vision provides an opportunity to more effectively identify the capabilities and supporting technologies that will most benefit Army installations and the Corps ability to support installations and the Nation in the future. Once those future capabilities have been identified, we can then focus our technology investments to provide those benefits.

USACE headquarters has adopted a concept to provide an increased strategic component to the USACE technology investments. Successful implementation of the concept will require active participation of both senior USACE and Army leadership and potential technology users at our Districts and installations. The concept has four principal vectors:

- Corporate Technology Transfer
- Strategic Requirements Process
- Life Cycle and Return-on-Investment Analysis
- Balanced Investment Strategy

The current technology transfer process in the Corps is often ad hoc and places too much risk on projects. This often causes the transition process to occur on a limited basis or via a repetitive and relatively expensive process. The lack of corporate resourcing and management of the transition process puts

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The appropriate staff action officers will then be tasked to implement the recommendations.

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the burden on individual installation and District projects in a trial by fire mode. Creating a more systemic transition process that both takes advantage of, and serves the USACE regional business center concept, is an essential step in realizing the benefits of our current and future technology investments.

Our current R&D requirements process has evolved to serve the most critical needs of the field. Installation and District personnel have participated on our Civil Works Field Review Groups (FRG), Technology Leadership Groups under the Facilities Infrastructure Technology (FIT) Program, and Technology Teams for each of the Pillars under the Environmental Quality Technology (EQT) Program. This approach has developed a paradigm of investing available R&D funds in critical but often short term initiatives. There has not been an analogous process to consider and resource longer term initiatives that are focused on capabilities critical to future mission execution and competitiveness.

We are putting in place a process to develop a deliberate long-term technology investment strategy that complements the existing process. The new process is intended to focus on longerterm needs and be aligned with the strategic vision and goals of the USACE and the Army. On the Civil Works side, the new process uses the Civil Works Strategic Plan as a platform and the recently constituted business area Murder Boards. For Installation Support, a similar effort will be developed for a long-term technology investment strategy via the FIT and EQT Programs.

The first step in the strategic investment process is definition, by business area, of the future operational capa**bilities (FOC)** that are essential to the effective execution of the Corps mission in the future political and economic environment. By focusing on capabilities instead of technologies or R&D directly, it is easier to determine when

available technologies can satisfy the need.

The second step will be to develop a "roadmap" of the technologies and their inter-relationships that will provide for the desired capability for each of the FOCs.

Attached to each roadmap is a time and resource requirement.

The third step is to analyze the potential return on investment if the FOC is achieved using a **life-cycle** approach. It is essential to include the cost and business practice consequences of the development, the transition and the operational application of the technologies inherent in the FOC. This provides a basis for prioritizing and budgeting within and among business areas to create the best overall investment and capability for the future. This process has been put in place already for the Army Environmental Quality Technology programs.

When coupled with the more immediate needs identified by the FRG, FIT, and EQT process, the new process provides the basis for a **balanced short** and long term technology investment strategy. The strategy incorporates development and transition of capabilities and facilitation of their operational application as well as leveraging complementary technologies being developed within the military and civil funded research programs of the USACE.

This balanced investment process has been endorsed by the Corps' senior leadership and is being worked as we meet. Aligning our R&D investments with the strategic directions of the Corps is a primary metric in the USACE balanced scorecard approach to strategic management. FOCs and Roadmaps will be developed with input from both senior leaders and technology users at installations and Districts. Your participation will be a critical component of developing our Strategic Technology Investment.

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#### he Environmental Compliance Assessment System (ECAS) process has traveled around the world (three times now) within total Army installations for approximately 8 years, (at some MACOM's even longer). Its primary design function is to examine activities and operations to identify specific areas in need of resources, highlight the positive initiatives of the program, identify procedural changes in the way business is being conducted and elevating overall environmental sensitivity and awareness from operator level through to the Command structure.

The Army is now completing its third cycle or iteration of the process, to continue helping facilities identify corrective actions and associated costs to place those issues in need of attention in an improved compliance posture as well as aiding in sustainment.

Funding resources and manpower limitations without mention, prohibits a 100% fence-to-fence assessment of every operation and activity. However, a well focused thought-out sampling strategy for activities and areas to examine during the assessment process is articulated with the installation/facility by the designated assessment team.

The ECAS process was never intended to serve as a standalone 100 percent deterrent to Federal or State regulatory violations, but rather serves as one of the major components within the overall "Environmental Line of Defense." There are other key players that "must" remain on line, shouldered with ECAS to maintain a minimal level of protection necessary to help preclude enforcement actions.

Other components vital to the cause are as follows;

Continued use of the Installation Corrective Action Plan (ICAP) as an associate member of the ECAS process, to monitor the status of correcting findings uncovered from the efforts of the external assessment teams field work and any internal assessment or inspection activities that produces findings as well. This component serves as a living tool and mechanism to track progress in closing out ECAS findings and aids in the prevention of "repeat findings" (which

### **Environmental Line of Defense—what does** yours look like?

by Curt T. Williams

averages 13% throughout Army). Additionally, the ICAP also serves as an excellent briefing item on the installation EQCC agenda, to keep Garrison/Staff and Commanding Generals "informed" of their installation status, assigns ownership and accountability of the issues to be resolved and demonstrates to public and regulators the sincerity of commitment to compliance.

• Continued activity within all facets of the Pollution Prevention (P2) program, (to include but not limited to indoctrination/maintaining and sustaining various forms of a Hazardous Materials Mgmt. Program) to zero in on recycling usable hazardous materials, minimizing unnecessary waste generation, and smart substitution of less harmful materials, to mention a few, serves as a vital player in the line up of defense against ENFs, reducing operating costs and saving diminishing environmental funds.

**3** Routine "walkabouts" by "other installation personnel" (non-environmental or designated Environmental Compliance Officer's— ECO's at the activity or unit level, such as maintenance, aviation, supply, transportation etc.) w/in their "own backyards" to continually CHECK and RE-CHECK, not only areas looked at during the ECAS team visit, but equally important, the activities and operations in everyday business NOT visited during the ECAS field effort especially during the "off cycle/off season years" of external assessments. Select topic area Compliance User's Guides have been solely designed and are available to help fine tune environmental focus and provide assistance to "others" (facility managers and users). These User's Guides aid in not only filling-in those potential "gaps" a previous ECAS couldn't get to, but also in applying the commonly found findings the ECAS process uncovered, to other similar activities, all of which are fair game

for NOVs and Enforcement Actions from Federal and State regulators. (User's Guides POC at Installation Environmental Office via DENIX and MACOM ECAS POCs).

4 Continued faithful identifica-tion of projects and requirements submission into the Environmental Program Requirements (EPR) report, remains vital to compete for limited resources in supporting corrective actions through to completion and maintaining the level of "sustainment."

Faithful quarterly submission of cur-Trent information into the Environmental Quality Reporting (EQR) System serves as a reliable source in monitoring the status of Enforcement Actions (ENFs – NOVs), inspections, permits and the array of installations plans.

**6** Continued work within the ISR Part II process, (to include collective cooperative efforts among MACOMs, ODEP, and ACSIM involvement) to obtain a mechanism which truly represents an honest and accurate reflection of the installations environmental posture and "condition" to pave a road to wellness.

**Z** Lastly, and extremely key, is continuous efforts in "non-stop" education and awareness (from activity/unit level through to Command level support) and willing flexibility to make good sense "changes in the way we conduct everyday business" and yet accomplishing the installation mission. With strong Command emphasis, this continues to only enhance environmental sensitivity through-out all levels of installation operation and remains of utmost importance in sustaining a solid defensive line against future enforcement actions.

The components described above, working together, comprise one form of an overall "Environmental Line of Defense" necessary in the prevention of potential ENFs to posture the Army as a national environmental champion. What does your Defensive Line look like?

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# **ESC** is one stop security shop

by Angela Dixon

he Electronic Security Center (ESC), part of the Engineering Directorate at the Huntsville Center serves as the Corps of Engineers Mandatory Center of Expertise for Electronic Security Systems (ESS).

According to Mr. Darrel Anerton, Chief of Electronic Technology Branch, the center provides a one-stop security shop. The ESC can survey, design, procure, install, test, monitor and maintain electronic security systems world-

Initially called the Intrusion Detection Systems Center of Expertise, the ESC has grown from \$8 million in revenue in 1999 to \$26 million today. "With all the terrorist actions, people are becoming more aware of the risk they take on a day to day basis," Anerton said.



The ESC concentrates on detection systems like the perimeter security assessment closed circuit television unit.



This intrusion detection system is one example of the service the ESC can provide.

Up until four years ago, the ESC only did work for the Corps of Engineers and the Army. Today, the ESC is available to do work for any U.S. Government agency.

Its first major project outside the Army was security for the Federal Bureau of Investigation and it is still ongoing. Currently, the Smithsonian Institution is the largest ESC customer. The Smithsonian program is a system integration effort worth as much as \$15 million.

The ESC has since provided security services for the Immigration and Naturalization Service, U.S. Customs, the Kennedy Center for the Performing Arts, parts of the Pentagon, and the Bureau of Reclamation, an effort where the ESC will do electronic security work for all the dams west of the Mississippi River.

The ESC teams with the Omaha Protective Design Center on some occasions to complete all-encompassing physical security projects. "The ESC takes care of the electronic aspects of security and the protective design center does the barrier and blast protection work," Anerton said. The teaming concept is not new to the ESC. "The ESC worked as a team long before the teaming structure became popular," Anerton said. "Our method lets us involve our personnel, contractors and cus-

tomers in the process and it works well," he said. "Since we have a very broad customer base, we must be customer care oriented.'

According to John Brown, Lead Program Engineer for Electronic Security Systems (ESS), the basic elements of an effective physical security system include detection, assessment, delay and response.

The ESC concentrates on the detection and assessment areas. Detection includes intrusion sensors and electronic entry control, while assessment focuses on application of closed circuit television systems.

When a request comes in, the ESC uses a four-step process to handle it. The team must first identify the security need; then, conduct a site survey; design the recommended measures; and finally, implement and install security upgrades. The process can take anywhere from three months to one year.

Members of the ESC team, including eight project engineers and two contract specialists, travel the globe to places like Germany, Japan, Korea, Bosnia, and throughout the 50 States.

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# MONRIO

leo Oswalt retired on February 26, 2000. Thanks to Leo, today's IFS records all Army real Lproperty data and all work accomplished on the real property including labor, materials and equipment costs. It provides DPWs an effective workload data collection system, which is essential for a successful A-76 study. While the IFS maintenance and support mission was transferred from the Installation Support Division (ISD) to the Huntsville Engineering and Support Center in 1999, the IFS program Manager function remains with ISD.

### **PROFILE: Luther E. Oswalt**

by Alexandra K. Stakhiv

very so often, you come across a person so closely associated with a particular subject that you can't think of one without the other. That's the way it is with Luther E. (Leo) Oswalt and IFS, the Integrated Facilities System.

Leo just wanted a job when, fresh out of the Army, he came to work for the Corps. Little did he know at that time that, one way or another, his entire government career would revolve around this automated work management system.

Nevertheless, his interests were always much broader than just IFS. Leo was fascinated by the whole business of facilities engineering and management. "If I ever had to choose between facilities engineering and management," says Leo, "Ĭ don't think I could have done it. I was raised to be a manager from the time I was a small kid. I grew up in this kind of business. My childhood was spent around saw mills, hardware, and building supply on a farm in a small town in Alabama. I had to run crews of men who were much older than I was. As a result, I had to make sure that things were done right. So I've always had an interest in the hands-on stuff as well as in the theory of things."

Into the early 1970s, the Army based budgetary needs on requirements, which was the premise for IFS. The system ran on a mainframe and was fielded to all Army installations except those in Europe. Implementation began in 1975.

Leo's first encounter with IFS came in 1976, when he became a member of the Facilities Engineering Directorate in Washington, DC. "General Bacchus was the Director and Pete Sabo was the

Branch Chief," reminisced Leo. "I started out by doing all the things an action officer in Washington did-running papers and writing fact sheets. I also ran the budget and wrote papers about IFS defending it for the Corps. However, in those days, it was hard to separate the Corps from the Army Staff because of the ACE (Assistant Chief of Engineers). All of this work was done under the ACE and so we had to work through the ACE."

Leo quickly got involved in the actual building of the system. "It was my job to brief General Delbridge, who was the deputy chief at that time," said Leo. Dick Farner and I developed this idea, plotting it on small pieces of paper that we later taped together until it grew to 12 feet in length and 6 feet in height. It showed every step that we had to go through."

"Finally, we got to see General Delbridge. It was a very dramatic scene. We walked over over to the large table he had in front of his desk and started to slowly unroll our paper—it just rolled and rolled until it fell off the table.

"Needless to say, General Delbridge was very impressed until he noticed that we wanted to link up with CADD. He asked if we had ever heard of IFDEP (Integrated Facilities Data Entry Process). That same afternoon, he sent an army of men in dark suits to tell us about IFDEP, which was a way of defining your business graphically. It's a great process, even though it takes a lot of time to do it. It looked as good as anything we had, so we started using it."

This worked to Leo's advantage because it got him and IFS the involve-



ment he needed from the installations and the MACOMs. "We ended up with a better description of our work and our business and what we do," he explained. "It had nothing to do with automation. It was everything about our business and what we do.'

Basically, the process involved spending several weeks working on the as-is portion of a business process, then briefing it to a higher level board of executives chaired by the Director of Facilities Engineering. "We had reps from every possible corner of the business," boasted Leo, "—a huge board and an unbelievable number of people involved. It was not uncommon for us to have 100 people in on one of our meetings. They would work on some stuff, clean it up and then come back. That's how we developed the requirements for IFS. It's also how we developed the software as we were developing our requirements. I called it construction while under design."

The approach was simple enough. In the process of doing these requirements and analyses processes (rap sessions), people would be brought in from the field, and they would put together the things they wanted to see in order to do their business. Using graphics and a special format, each item had to be



defined and everyone had to agree on it. There had to be a consensus.

As time went on, the sessions got quite loud and even physical according to Leo. Some of the DPW folks got so involved that they would work all night long just to get a point across in the morning. Others would take work home on the weekend and return on Monday with it all neatly arranged so they could explain it better. They would get so worked up that Jack Malone (Chief of the Systems Development and Maintenance Division at Fort Lee) decided to move them into the chapel to calm things down.

"We had tremendous interest," said Leo. "By now, there were over 400 people involved in this thing. But as it turned out, a lot of the people still didn't understand. The group had to review everything because that represented the policy level. We had the requirements from the ground and policy from the top; and we had to bring them together.

"But we were making more headway than we had with anything else before. We had this block and this block and this block and we needed to integrate them into one seamless whole. The people who were teaching us how to do IFDEP kept saying there's an interface, but when the time came, they didn't have the foggiest idea how to do it. Some of our folks said there's only one way and that's hard work. If you've made an assumption here that clashes with something else down there, you are going to have to work on it until the issue is resolved.

"It turned out that they were right. We had to draw all the diagrams for the dataflows and the databases because, in those days, there was no software that could do this. Finally, we bought a MAC PC so we could use MacDraw."

The day came when the system was finished, and they moved on to the system acceptance test at Fort Eustis, where Leo had been sending bits and pieces to try out over the last three years. Once they loaded up the latest software, they still found over 100 bugs. After fixing the more serious ones, Leo took the system to the MAISRC (Major Army Information System Review Counsel). He recalls their saying, "You

have an innovative way of financing this thing, but you'd better check it out with the Army legal people." The MASARC promised an answer in two weeks.

"We were ready to run and the contractor was standing by," said Leo. "Unfortunately, we didn't get a response until more than six months later, losing over \$250,000 by keeping the contractor waiting. Of course, the MASARC found nothing wrong.

"We deployed to 135 sites over the course of about three years. We had a very simple network, not a true network as we know networks today. Basically, it was a wire running from a PC over to the machine. No routers and other things, but it was state-of-the-art for that time.

•• If you've made an assumption here that clashes with something else down there, you are going to have to work on it until the issue is resolved. 99

—Leo Oswalt

"CPW acquired the hardware for the installations," said Martha Sharpe, Automated Systems Specialist. "They paid us and we procured it and put it in place for them using a GSA IT (information technology) fund. We entered into a formal agreement with GSA to deposit money for IFS acquisition into the fund, which paid the vendors based upon our delivery orders."

The fund made it possible to maintain the deployment schedule, since the money could be "rolled over" into the next fiscal year. That's what the MAIS-RC wanted checked out. In effect, it became a revolving fund.

Eventually, Leo started thinking that there had to be a better, less expensive way. Once again, he put together a group of folks from the installations, MACOMs, Army staff and brainstormed at Fort Lee for two days.

Three things came out of that session. First was the realization that the system needed to be put into a Windows environment and second, onto a client server. Third, it had to become more flexible.

"We were running out of parts for the old machines, and replacing the common parts was costing us a fortune," said Leo. "The maintenance on

the UNISYS was over \$20,000 a year! I did some simple calculations and said we can buy two servers—one to keep as a backup—for \$20,000. We took the system and moved it to the server. We had to make some changes to the software, but no radical changes to the system. Everything looked better because Windows provided more functionality."

However, they still didn't have a training program. They took the hardware and the server to Fort Lee and in many cases, the systems administrators (SAs) and the database administrators (DBAs) were brought in and trained there on how to set up the system.

"We set up their LANs using contractors, an EDS consultant, installation

> DOIMs and customers," said Jim Webster, a CPW member of the IFS team. "From installation information related to existing networks, I built a computer model of each proposed LAN with the aid of EDS. These models were then translated into lists of equipment and cabling to purchase. The installations either pur-

chased the equipment or provided money to us to purchase equipment and installation services for them."

"We did all kinds of other things in an effort to keep costs down," recalled Leo. We designed networks so that they would fit in with networks already in place at the installations if they had them. We hooked them into a gateway for ACCESS. And it all worked.

"This whole business of hardware/ communications was always financed by the installations. We got it going and Bingo! All at once, we could do lots of things because we had Windows there. We could cut, paste and pull stuff out. We could build a spreadsheet, put data in or out. People learned how to write queries and how to use ACCESS. Flexibility was arriving. It wasn't quite there, but it was arriving.

"We went to the client server version of the system and suddenly everyone wanted a web version. So I built a web version using a browser and the same screens. Our system would immediately tell you what was wrong and what you needed to correct, not wait until you finished the whole page to tell you that something was wrong.



(continued from previous page)

"As time went on, we replaced the Microsoft ACCES version of IFS Real Property because ACCES could not handle all of the requirements of the field. We started to go to the client server, since we had already built the replacement for DR REAL. It was a Real Property Standalone, which was built in Microsoft ACCES. And that brought Windows and the Database Management System to the PC for the people who didn't need the rest of IFS."

Thanks to Leo's final efforts, the future of IFS is bright. Together with CERL, he developed APIs (Application Program Interfaces). These are a relatively small set of programs he set up in IFS to do certain functions such as publish specifications. Vendors can now interface without coming to us, and both government and vendor data remain protected. This does not hurt performance in any way. Outside vendors can come in with their COTS and installations can pick and choose what they want in functional program applications. APIs will give installations the ability to link all commercial packages and replace all existing connecting interfaces with other systems. No one else in the government can do this.

"We still need to train because of turnover," concluded Leo. "We don't have to retrain because the screens remain the same. Nevertheless, training is expensive and usually the first to be cut.

"All that is a part of history now," sighed Leo, who recently retired from government service. "IFS will always be a part of me, but it's time to let go. The new program manager, Tony Vajda, has some exciting things planned for the coming year. I will miss all the people who worked so hard with me for so many years to put this fantastic system into place. But most of all, I'll miss the excitement of creating something that will be so useful to so many people for so many years."



The critical role that information technology (IT) plays for today's modern Army in accomplishing our mission, not only in garrison but also on the battlefield, cannot be understated. The investment the Army makes to train and maintain our people's IT skills is substantive when weighed in terms of dollars invested and the time spent away from the office learning and maintaining those skills. Traditionally, commands have borne the major part of this training expense. That is, until now.

The Army has a new way to train a computer savvy workforce with free IT training delivered over the Internet or installed as a service on selected Army local area networks (LANs). Referred to as Computer Based Training (CBT), soldiers and DA Civilians can access over 1110 courses today on everything from basic office automation skills (spreadsheets, word processing, etc.) to advanced skills in the areas of Internet Security and certified systems engineering courses. Those course selections are constantly being updated and expanded.

On the average, about 25 new titles per month are being added to Army's CBT capabilities at no additional cost to the Army under the current contract. One example of the monthly updates is the recent addition of a comprehensive suite of courseware for Windows 2000, which can support the successful migration to that operating system for those who are planning to do so.

As of this writing, over 70,100 Active Army soldiers, National Guardsmen, Reserves, and DA civilians are becoming better at their jobs by taking the CBT classes on the Internet and the numbers are growing. From 27 March to 16 May, over 6600 new users registered at the Army's central Web-based site, hosted by the Army Training Support Center at Fort Eustis, Virginia. Over 50,000 additional personnel are taking the courses using copies of the CBT courseware installed on their LANs. SmartForce, the contractor providing the CBT courseware, recently noted that the Army may now be the largest user of an Internet-based training system in the world.



The cost avoidance that the Army can realize by leveraging CBT is substantial. For example, to obtain the training necessary for a network administrator to become certified in his or her job, organizations have paid, in many cases, fees well in excess of \$5000. With CBT, that same training is free and the only cost incurred is for the actual certifying exam itself. The Army has a growing list of personnel who have used this approach to realize these types of savings. The same holds true for more routine training on standard automation products.

The full potential of CBT has not been reached vet. Several major commands are starting to link completion of courses to promotion points and other professional development benefits. The Army Signal School at Fort Gordon, Georgia, has incorporated several CBT courses into the syllabi for military occupational specialty-producing courses. The CBT is also a part of the Department of the Army Acquisition Career Management Course Catalog, providing additional skills to CP-34 and other civilian functional areas.

The current CBT contract includes the 335 "seats" for Army students who receive devoted, on-line professional mentoring by SmartForce technicians and staff. The Total Army Distance Learning Program (TADLP) has selected 100 courses from the CBT catalogue of courses considered to be critical for Army's IT competency for distribution to each of the TADLP training facili-

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ties. Those courses include the more relevant and popular end-user applications (for example: Microsoft Office, basic PC operations and troubleshooting, and introductory technical courses dealing with Web site development, Internet security, NT 4.0, etc.).

The CBT is more than an excellent training environment supplementing current Army IT skills requirements. It's proving to be an excellent reference system for leadership and management to quickly get up to speed on specific information technologies. Consequently, our leadership is making more informed decisions on significant procurements and conducting better negotiations because they have detailed information at their fingertips. In this vein, CBT is being used to supplement the business management courses offered by the Defense Acquisition University to provide Army leadership with powerful tools to keep the Army out in front in acquisition streamlining.

Here are what a few soldiers and civilians currently using CBT have to say:

"I believe that the availability of these CBTs is an outstanding asset that will be vital in expanding our knowledge base for all personnel. Please continue with providing us with these exceptional products. Thank you. ""

—U.S. Army staff sergeant

"I have just completed my Server Exam [70-076], which I passed with an 89 due, in large part, to the material I studied at the CBT Web site. I would now like to enroll in Server Enterprise [70-068] study course . . . Thanks. ""

 ${}^{\omega}By$  the way, thank you very much. It is a great privilege to be able to use this site to enhance my computing knowledge. I am going to be taking the MCSE tests. I know the CBTs are going to be a great asset to my studying and passing the tests. I will pass this on the others in my unit so they can sign up. "

—U.S. Army sergeant

"I just wanted to send you an e-mail of another success story due in no small part to your excellent CBT site/service. I have received my MCP (Microsoft Certified Professional), MCSE (Microsoft Certified Systems Engineer), MCP+I (Microsoft Certified Professional + Internet), and MCT (Microsoft Certified Trainer) from Microsoft. I have used your CBTs throughout to help me review for my intense Microsoft Certification examinations, and they have been of tremendous value. I cannot speak enough good words about the value of the service you are giving the military. Thank you for helping me to further my professional skills and my career. "

—DA civilian

The bottom line is that if you wish to keep your workforce state-of-the-art in its IT skills and you want to save money at the same time, CBT is something you should be using as part of your overall strategy.

The current CBT contract, awarded to SmartForce in 1999, includes the base year and four option years. Smart-Force is an industry-recognized leader in e-Learning solutions, having enterprise-level contracts with the Army and Air Force, and numerous contracts with other DOD organizations.

To access the free training, soldiers and DA civilians need to initially register from an ".army.mil" domain the first time. Once they sign in, register, and create their own unique user id and password, they can access the site from any Internet capable computer at any location. Alternately, larger organizations may request that this capability be installed on their LANs.

The CBT is the wave of the future and while its principal focus is on IT skills today, its use for other training needs in the future is just one more possibility as Army employees continue to "Be All You Can Be." The Army workforce can access a list of courses at http://www.armycbt.army.mil/armycbt/default.htm at any time to see what courses are available without registering. PWD

LTC Thomas C. Loper works in the Office of the Director of Information Systems for Command, Control, Communications and Computers.



# **IFS** developer wins **Technologist of the Year**

oan Parrish, lead technician for the IFS technical development team, was recently nominated and select-U ed as Technologist of the Year in a TRW awards program pitting several of the best scientists in various fields in stiff competition. Joan Parrish was selected from an impressive field of other nominations in the software engineering category. As a result of her aggressive work and development innovations while working with the IFS staff, TRW selected Joan to receive this prestigious award.

Joan Parrish joined the IFS government/contractor development team in April 1987 as a junior programmer. Computer Sciences Corporation (CSC) picked her up under a summer hire program. When CSC received the

requirement for a programmer for IFS, Joan was selected to fill the position. Joan's scope of responsibility increased steadily as her skills sharpened and the leadership identified her as an aggressive, dedicated developer capable of handling increased responsibility. When the government awarded TRW the IFS work, Joan's reputation established her as a must hire. Initially, Joan remained with CSC. However, a rough transition of work from CSC to TRW threatened to stagnate development. TRW approached Joan again and she accepted an offer. She immediately reorganized the development team and refined development standards which resulted in high productivity once again.

Joan Parrish has seen IFS migrate from mini-computer/dumb terminal



construct to client/server. Currently, Joan is in the process of designing web forms for IFS connectivity. Joan's experience has been instrumental in the success of every aspect of IFS. Due to her longevity on this project, she is as comfortable with the functional aspects of the system as with the technical demands for development. Joan's proficiency with software development has contributed greatly to an efficient and effective team that maximizes the buying power of every dollar committed to the system.

Vaughan Edmondson, IFS Project Leader for the Software Development Center at Fort Lee, has frequently stated that Joan's technical development team is stronger now than he has seen in his 14 experience with IFS.

Balancing a very demanding professional career with a healthy family life is a challenge for most committed professionals. Joan continues to be a model of efficiency with this aspect of her life. She is the mother of two beautiful daughters (with another shortly to arrive) and wife of a husband with his own successful career. Joan strikes this balance with ease and confidence that prevents her professional

family and her home life from feeling slighted in the least.

Joan received her Technologist of the Year award on 17 June in Los Angeles. She is a credit to the entire IFS professional team serving the DPW community with the best possible system and software. PWD

### **FIRMS Update**

n 1 October 1999, configuration management of the Fire Information Resource Management System (FIRMS) transferred from the Fort Carson DPW Fire Department to the Integrated Facilities System (IFS) Program Manager. Functional support is now provided by Installation Support Center of Expertise personnel located at Fort Lee while technical support is provided by U. S. Army Software Development Center-Lee (SDCL). The Assistant Chief of Staff for Installation Management (ACSIM) remains the functional proponent for all matters related to Fire and Emergency Services. Policies, guidance, procedures and techniques related to configuration management are provided in DA Pamphlet 25-6 (Configuration Management for Automated Systems).

The IFS Program Manager (PM) provides management, control, and coordination of activities necessary for accomplishment of the FIRMS program. The PM is responsible for configuration management, financial planning and budgeting, future development and interfaces. The PM also ensures that IFS resources used to provide FIRMS support are applied as deemed appropriate by the Configuration Control Board (CCB).

The Fire and Emergency Services Automation Task Force continues to provide functional input to the design, development and deployment of FIRMS modules. Engineering Change Proposals may be forwarded to Mr. Jim Asbury, ISCX, ATTN: IFS Division, 3901 A Ave. Suite 150, Fort Lee, VA 23801-1807. Software Development Center—Lee is currently preparing a CD-ROM containing the latest versions of the FIRMS programs for distribution to the IFS community.

POC is Jim Asbury, (804) 734-0230 DSN 687. The technical Hotline Number is (804) 734-1051 DSN 687. PWD



# ROGSSON MANAGORIA

### **Sustainable Development and Design training**

by Rik Wiant

he Army is moving out on Sustainable Development and Design (SDD). In fact, the entire government is beginning to implement EO 12852, 13101 and 13123 making "sustainability" a defining condition of all future facility development.

But what is "sustainable development"? Some progressive corporations have set the goal as "no net loss of nonrenewable resources, energy or clean water— no environmental impact." GSA's defines it as "integrating the decision-making process across your organization, so that every decision is made with an eye to the greatest long-term benefits. It means eliminating the concept of waste—thinking "cradle to cradle" rather than "cradle-to-grave"— and building on natural processes and energy flows and cycles; recognizing the interrelationship of our actions with the natural world."

SDD is a big challenge. It impacts nearly all our guidance

**Sustainable Development** and Design Quiz

- ☐ Do you know the new commandments, concepts and practices of SDD?
- ☐ Do you know how SDD will be integrated into your daily life and installation planning & development decisions and into all infrastructure projects (MILCON, M&R, NAF, AFH, & reimbursables)?
- ☐ Did you know that all projects will be SDD certified?
- ☐ Can you apply the SDD scoring system to determine if your project is "certified" or gets a Silver, Gold or Platinum Sustainability rating?
- ☐ Can you define SDD, Natural Capitalism, the Sustainability Triangle, biominimacy, Eco-leasing, integrated design and holistic design harmony?
- ☐ Did you know that SDD will be incorporated in all 1391 submissions, Corps in-house & A-E designs, contract language and life-cycle cost analysis?

If any of these questions leave you in the dark— deliverance and enlightenment is within your grasp. Attend one of the ACSIM-USACE sponsored two and a half day SDD workshops for Districts and DPW personnel. The workshop will be presented at 13 District locations over the next 4–5 months. It's FREE! You only pay travel and per diem (nothing if you're within the local commuting distance)

POC is John Scharl, DAIM-FDF, (703) 428-7614 DSN 328.

PWD

and present practices. But it's not utopian! (And, we will have to do it eventually anyway.) As you might expect, early indications are that there are also big life-cycle savings, as well as what it does for our future quality of life.

There are a lot of barriers to SDD, but the first is our mindset. To check yours, take John Scharl's (ACSIM) quiz (sidebar). That should be enough to convince you to sign up for one of the special USACE-sponsored SDD courses this summer and fall. The courses are intended to introduce you to SDD concepts, including site planning, water conservation, energy efficiency, material use, waste reduction and indoor environmental quality, with the goal of producing cost effective sustainable design and practical implementation strategies.

In addition to USACE project delivery personnel, the courses are open to MACOM and installation facility planners and designers (Air Force as well as Army). There is no tuition or course fee (installations still must fund travel and per diem). To register, contact the district hosting the course you wish to attend.

The full course schedule and additional attendance information, along with the program of instruction, HQDA memorandums and much more can be found on Planning and Real Property page of the ISD website (www.isd.belvoir.army.mil).

Current Course Schedule:

CITY	DATE	POC	
Omaha, NE	20-22 Jun	Held	
Sacramento, CA	18-20 Jul	Shig Fujitani, 916-557-7412	
Savannah, GA	25-27 Jul	Tom Brockbank, 912-652-5212	
Seattle, WA	1-3 Aug	John Maciejewski, 206-764-3444	
Baltimore, MD	5-17 Aug [target date]		
Ft Worth, TX	17-19 Oct [target date]		
Louisville, KY	24-26 Oct	-	

To Be Scheduled: New York, Norfolk, Kansas City, Mobile, Albuquerque, Tulsa, Korea (w/Japan), Honolulu, Alaska, Europe.

But don't wait for a course to get started thinking SDD. One the best sources of information is GSA's Office of Real Property website (www.policyworks.gov/ realproperty). You can download the excellent REAL PROPERTY SUSTAINABLE DEVELOPMENT GUIDE. You can also read an on-line version with direct links to the resources and case studies.

POC is Rik Wiant, CEMP-IP, 703-428-6086 DSN 328, e-mail: fredrik.w.wiant@usace.army.mil

PWD

Rik Wiant is a master planner in ISD's Planning and Real Property Branch. He is also the Army representative in the DOD Sustainable Planning Study.



# **Developing GIS skills**

by Rik Wiant

eographic information systems (GIS) are becoming as important as spreadsheets for planning and managing Army installations. But where most planners and real property managers build their own spreadsheets and PowerPoint presentations, most are less comfortable with GIS. In fact, many work in situations where they don't even know they have access to a GIS. But most planners and real property managers are becoming aware that this is a skill they will need to cultivate. But how?

There are several answers beyond the "take a course from your local community college," or the GIS PROSPECT Courses (which usually fill as soon as the "Purple Book" is out. Here are a couple you might not have considered.

A lot of attendees to Symposium 2000 in St. Louis this May discovered that they could get "free" GIS training from the Defense Map School at Fort Belvoir, VA. Although intended for military students, DMS courses are open to qualified civilian employees on a space available basis. And there are courses applicable to installation management. If you didn't get a catalog, you can find out what you need to know from their website (http://164.214.2.59/NIMC/ curriculum/dms/index.html).

If you can't get away and TDY funds are short, consider taking an on-line course. One of the neatest is the ESRI Virtual

Campus (http://campus.esri.com/), especially if you are using ESRI products, like ArcView. Some of the courses are free; most have modest tuition. You will need the software for the courses, since they include exercises (you download the data from the site).

Finally, consider practicing with the GIS module of HQEIS (Headquarters Executive Information System). Many offices and installations are already using HQEIS as a ready source of IFS, ISR and related data. The GIS (presently) does not have the ability to show internal installation data, but it can display and analyze demographic data from the surrounding community. (At this year's ENFORCE Conference, ISD demonstrated a new Installation EIS GIS capability which does show building level IFS and ISR level of detail.) HQEIS is limited to authorized users; you can get a userid and password from Jerri King, (703) 428-6074 or Jeralyn.J.King@usace.army.mil.

### POC is Rik Wiant, COMMUNITY CEMP-IP, 703-428-6086 DSN 328. PWD COURSE CATALOG

### **Railroad Track Standards and Maintenance** training

he Railroad Track Standards and Maintenance training course will take place 19–28 September 2000 at Vicksburg, Mississippi.

This eight-day course provides training in the area of railroad track standards and inspection as required by AR 420-72 "Transportation Infrastructure and Dams," http:// www.hqda.army.mil/acsimweb/fd /policy/ar420\_72/pages/ch01.htm

The Army railroad track maintenance standards are taught along with inspection procedures needed to determine track deficiencies and methods by which the maintenance can be performed to correct the deficiencies. Completion of this course is the first step in obtaining certification as an Army railroad track inspector. The tuition has been paid by the Assistant Chief of Staff for Installation Management.

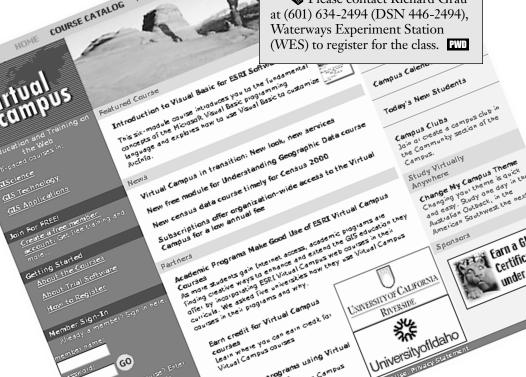
Please contact Richard Grau Waterways Experiment Station

## **Job Openings**

CAMP ZAMA, JAPAN:

- GS 12 Real Property Specialist
- GS 12 Master Planner

For more information, please contact Paul Volkman, Chief, EP&S Division, DSN 263-3053, e-mail: volkmanp@ zama-emh7.army.mil PWD





# AHIMASAMMA

# **Boiler and chiller plant operator certification** available through contract

by John Lanzarone

id you know that the Professional Development Support Center, Installation Support Division has a contractor who can provide boiler and chiller plant operator training? Do you know how cost effective it can be to have the contractor training your people on site? You'll avoid having to pay

TDY expenses for your operators; they'll be trained in familiar surroundings and on equipment they work with everyday. Depending on the number of shifts you operate at the plant, you may be able to train and certify half your operators with a one-week class. If this sounds interesting, then please read on.

The boiler operator training and certification contract provides boiler operators formal training and the opportunity to take the National Institute for the Uniform Licensing of Power Engineers (NIULPE) license examination. Army Regulation (AR) 420-49 requires that boiler operators "...be trained and certified in accordance with applicable existing Federal, State, local, or host nation standards. In the absence of Federal, State, local, or host nation certification requirements for boiler plant operators, the fourth class Power Engineer Certification program of the National Institute for the Uniform Licensing of Power Engineers, Inc., will be the governing requirement."

While AR 420-49 only requires operators be trained & certified to the NIULPE 4th class operator license level, it is recommended that operators be trained and certified to the First Class Engineer or Chief Engineer level for unsupervised operation of a boiler or chiller plant. The Professional Development Support Center, Installation Support Division contract allows for training and testing for these higher levels of certification. Additionally, the contract can provide a two day chiller plant operator refresher session and EPA approved training and certification for working with chlorofluorocarbon refrigerants.

Services available under this contract are now offered on a reimbursable basis through the Professional Development Support Center, Installation Support Division. If you'd like more information about these contracts, please contact Dave Palmer, (256) 895-7408, e-mail: david.c.palmer@hnd01.usace.mil FWD

John Lanzarone is a mechanical engineer at HQUSACE, Engineering & Construction Division.

### **Direct fueling systems for** hot refueling of helicopters

arious Army installations have become interested in providing systems to refuel helicopters while the motor is running (hot refueling). There is no Army design criteria for

these systems, but the Navy has developed definitive designs for direct fueling systems that can be adapted for hot refueling of helicopters by qualified designers.

These definitive drawings are available at an Internet website under the Huntsville

office of the Corps of Engineers. Sandy Wood, (256) 895-1718, is the POC at Huntsville for fueling systems. The URL for this webpage is <a href="http://155.74.8.101/stddqn/">http://155.74.8.101/stddqn/</a>. Fuel related defini-

tives and standard designs are located at the bottom of the webpage as well as a link to Military Handbook 1022, Petroleum Fuel Facilities (MILHDBK 1022). It is recommended that any designs for hot refueling be based on the definitive design. More information can be obtained from chapter 4 of MILHDBK 1022.

If your activity is considering installing or upgrading a hot refuel point, please coordinate the requirements (sizing, funding and M&R) through the US Army Petroleum Center. Note that AR 710-2 requires that fuel system designs be reviewed by the US Army Petroleum Center. POC is Jim Hugar, 717)-770-5582 DSN 977.

Assistance for fuel system designs is also available from the Corps of Engineers Fueling Systems Center of Expertise. POCs Jimmy Brasch, (402) 221-4916, and Joe Pesek, (402) 221-3061, can also be reached by e-mail through their website at http://www.now.usace.mil/html/

POC is Dale Otterness, CEMP-ED, 202-761-8621, email: dale.h.otterness@usace. army.mil PWD





hen it comes to intelligence, most people would consider a building's roof about as dumb as dirt. However, the Aberdeen Proving Ground Directorate of Public Works (DPW) recently installed a roof on Building 4305 that is so "SMART" that its IQ would probably qualify it for the MENSA Society. The key to this new roof is that it tells you when and where it needs fixing.

Typically, roofs let you know that there is a problem when water starts dripping on your desk. Sometimes, the actual bad spot in the roof isn't directly above you. It could be quite a distance away from where water shows up. A roof leak may travel horizontally along the roof deck, beams, and ceilings systems before it finds its way on to your head. Also, if it is a small leak it could take a long time, weeks or even months, before it comes through the ceiling. A large area of the roof could be saturated before you find out that you have a major problem. By this time, extensive damage may occur. When components such as roofing plywood, trusses, and insulation get wet, they begin to deteriorate and over time will lose their strength and effectiveness.

A "SMART" roof, on the other hand, would let you know the moment that water has penetrated the top layer of your roof. The way this works is through an array of moisture sensors that are sandwiched into the roof deck when it is built, or in an old roof that is entirely replaced. You wouldn't want to put this in an existing roof since the detectors have to be placed under the top layer of the roofing membrane. Many roof leaks are caused by penetrations of the roof membrane such as pipes, ducts, equipment supports, etc. To install the detectors in an existing roof would cause a penetration that would require patching, and patches

The leak detection technology being employed in Building 4305 is primarily intended for flat, built-up roofs commonly found on many commercial or industrial buildings. Pitched roofs built with tar paper and shingles, typical of

### Aberdeen Proving Ground installs SMART roof

by Charles A. DePase

most homes, are not suitable due to the thickness of the sensors. The sensors are placed in "wells" in the roof's rigid insulation. These wells are formed by core drilling the insulation. This would not be possible on a shingled roof.

The sensors are wireless and passive. They have a little dry cell battery that is moisture activated. As long as the sensor is dry the battery has an indefinite life. Each sensor has a unique radio signal that it emits when the battery is activated. The signal is transmitted to a remote receiver up to 300 feet away. The receiver logs and permanently stores the unique detector number, the time and date, and produces an audible alarm. The receiver is positioned where operational or maintenance personnel will notice it.

In this case, the receiver is located next door in the DPW Business Management Division in Building 4304. It could be tied into a modem or a network connected directly to the DPW maintenance shop. Maintenance per-

sonnel could be dispatched to the building and repairs could be made before the user even knows that there is a problem. Early detection minimizes the extent of damage and significantly reduces the cost of repairs.

The new "SMART" roof on Building 4305 is a demonstration project by the U.S. Army Corps of Engineers, Engineering Research and Development Center, Construction Engineering Research Laboratory (CERL). This project is part of a larger initiative by CERL to examine ways to implement "SMART" technology in U.S. Army facilities. The premise is that by using state-of-the-art technology "SMART" buildings will cost less to operate and maintain or significantly enhance safety, security, and business processes. Building 4305 was chosen by DPW because its roof was in the process of being replaced. It is the future home of the APG In/Out Processing currently residing in Building

POC is Charles A. DePase, EACD, (410) 306-1169, e-mail: cdepase @apg-emh1.apg.army.mil

Charles A. DePase is a mechanical engineer in the Directorate of Public Works at Aberdeen Proving Ground, Maryland.

### **ROOFER Notice to Division DPMs**

**ttention, all Directors of Programs Management!** ROOFER is the automated roof management program that was formally managed by the Corps' Center For Public Works (CPW), and offered to Army Engineers as a means of identifying their roofing defects. The program is a reimbursable Corps product, and the Huntsville Installation Support Center of Expertise (ISCX) is letting, and will manage, two ROOFER contracts this September. With the ROOFER contracts (infrared fly-over and physical inspection) in place, Army and non-Army customers will be able to again "hire" the Corps to help them identify their roofing problems.

Mr. Jim Ledford of the South Pacific Division Installation Support Office (ISO) is the only remaining experienced ROOFER person in the field. He will work with the ISCX Contracting Officer's Representative and provide functional support to the customer. Please contact Mr. Ledford at (916) 557-7893 for assistance in setting up any ROOFER projects in your Divison areas.

Our ISO personnel have been in contact with each of your Division ISOs, but it is up to you to remind your staffs about the ROOFER program.

POC is Steven L. Stockton, Director, Programs Management, USAED South Pacific, (415) 977-8238, FAX: (415) 977-8277, e-mail: sstockton@spd.usace.army.mil

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